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TAMPERE UNIVERSITY OF TECHNOLOGY

VILLE TYRVÄINEN

INFLUENCE OF ESPORTS SPECTATING ON CUSTOMER RETENTION IN FREEMIUM VIDEO GAMES

Master's thesis

Examiner: prof. Juho Hamari & Assistant prof. Henri Pirkkalainen. Examiner and topic approved by the Faculty of Business and Built Environment on 29th of October

ABSTRACT

VILLE TYRVÄINEN: Influence of esports spectating on customer retention in freemium video games.
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Video games have become great segment of entertainment industry during the past couple decades. The total revenue of video game industry was almost 110 billion dollars in year 2017. Video gaming has become spare time hobby for majority of the people. Over 60% of US citizens play video games daily and the average age for players is 34. The video games have no longer specific target group like before.

Freemium business model has become dominant option for the video game industry. It is based on providing the core features of the video game for free, while in the same time game includes additional content, which is accessible by optional payment. The advantage of freemium game is attracting vast number of downloads for the video game due to its cost-free core. However, according to research over half of the players abandon the game after first session, which makes the customer retention critical factor for ensuring high enough player base, so the game is profitable. Typically, in freemium games only five percent of the players use money and the great majority of the players play for free.

The data gathered from in-game has been utilized for decades in optimizing the customer retention increasingly, but the analyzing and benefiting the factors outside of the video game for the customer retention is still insufficient. One of the remarkable out-of-game factors is competitive video gaming, also called esports, of which popularity has grown rapidly and the most popular video game tournaments have over tens of millions of spectators.

The goal of this study is to examine the relationship between esports spectating and intention to play video games. The previous studies have focused on reasons behind watching esports and optimizing the gaming with in-game data, but research has not paid attention to esports influence on intention to play video games.

The study was out carried with survey, which examined respondent's gaming habits, motivations for spectating esports and intention to play video games and use money on video games. The result is that there is distinct relationship between esports spectating and playing video games, and there were couple significant factors for esports spectating motivations. In the future video game companies should pay attention during the development process to out-of-game factors also, for example, esports.

TIIVISTELMÄ

VILLE TYRVÄINEN: Elektronisen urheilun katsomisen vaikutukset asiakkaiden sitouttamiseen freemium videopeleihin.
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Avainsanat: videopelit, freemium, asiakassitouttaminen, e-urheilu, katsomismotivaatiot, pelaajatyypit

Videopeleistä on tullut merkittävä osa viihdeteollisuutta viimeisten parin vuosikymmenen aikana. Videopeliteollisuuden kokonaistuotot olivat jo vuonna 2017 lähes 110 miljardia dollaria. Pelaamisesta on tullut suurelle osalle ihmisistä ajanvietettä ja peräti 60% Yhdysvaltalaisista pelaa videopelejä päivittäin ja pelaajien keski-iän ollessa 34 vuotta. Stereotyypeistä pelaavista teinipojista voidaan luopua.

Pelialan dominoivaksi liiketoimintamalliksi on noussut freemium, jossa tarjotaan varsinainen peli ilmaiseksi, mutta pelin sisällä on mahdollista ostaa lisäsisältöä vapaaehtoisilla maksuilla. Freemium pelien etuna nähdään, että hinnoittelumallista johtuen ne houkuttelevat suuren määrän latauksia pelaajilta. Kuitenkin, tutkimusten mukaan jopa puolet pelaajista hylkäävät pelin ensimmäisen pelikerran jälkeen, jolloin asiakkaiden sitouttamisen merkitys korostuu riittävän pelaajamassan takaamiseksi. Freemium videopeleissä tyypillisesti vain noin viisi prosenttia pelaajista käyttää rahaa ja loppu selkeä enemmistö pelaa peliä ilmaiseksi.

Pelin sisäistä dataa on jo hyödynnetty vuosikymmeniä pelaajien sitouttamisen optimoinnissa enenevissä määrin, mutta pelin ulkopuolisten tekijöiden analysointi ja hyödyntäminen pelaajien sitouttamisessa peliin on vielä puutteellista. Yksi merkittävistä pelin ulkopuolisista tekijöistä on e-urheilu, jonka suosio on kasvanut räjähdysmäisesti ja pelien suosituimmat turnaukset keräävät kymmeniä miljoonia katsojia.

Tämän tutkimuksen tavoitteena on tarkastella e-urheilun katsomisen ja pelin pelaamisen välistä suhdetta. Aikaisemmat tutkimukset ovat keskittyneet syihin katsoa e-urheilua ja pelaamisen optimointiin pelin sisällä, mutta tutkimus ei ole kiinnittänyt huomiota e-urheilun vaikutuksiin pelien pelaamisessa.

Tutkimus toteutettiin kyselyllä, jolla tutkittiin vastaajien pelitottumuksia, motivaatioita e-urheilun katsomiseen sekä aikomusta pelata videopelejä ja käyttää rahaa videopeleihin. Lopputuloksena on, että e-urheilun katsomisella on selkeä yhteys videopelien pelaamisen kanssa, ja e-urheilun katselulle pystyttiin todentamaan motivaatioon perustuvia tekijöitä. Videopeliyritysten tuleekin jatkossa kiinnittää huomiota pelien kehittämisessä myös ulkopuolisiin tekijöihin, kuten e-urheilu.

PREFACE

The past, almost, 10 years at Tampere University of Technology have surely been more than I could have ever imagined, before setting my feet for the first time on the Festia stairs. My original plan was to just study the degree in four years and move on. Well, that plan did not last for long, not even a year. The things I have been able to experience thanks to this awesome community, guilds and clubs, would have never been possible in any other circumstances.

There are far too many great people I have met during my studies at TUT, to be able to thank them all, but I will try my best. First, I would like to thank you my guild Man@ger. The years at the board are something I will never forget, and there can only be one home, which is the guild room at Konetalo. Special mentions of the fun years go to Kiltaneuvosto13, Mahtihiiret, TTYYH15 and Wappu team 2014, who have all brought me great joy during the past years. I am honored that I had chance to organize the jubilee year of my own student union during my studies and spend unforgettable year at Student union's corridor with amazing persons, who I know better as #perhe.

This Master's thesis was intense sprint of seven weeks, which took countless of hours and many sleepless nights. This all would not have been possible without support of my friends and possibility to take power break for Pepsi Max -moment or other similar activities. Thank you Dänk Memes -group for providing me endless entertainment during these past weeks. All the master pieces require place to work, and for me it was TeLE's guild room and the optimal studying environment it was able to provide for finishing my studies. The final form of this thesis, would not have been possible without help of my friends: Tiia, Olli, Helge and my girlfriend Viivi, who all gave most valuable comments related to the thesis.

Like every Padawan has their own Jedi Master, I had my mentors Juho and Henri. I would like to thank you for being very active during the thesis writing process, and helping with every problem I had, even the tiny ones.

Finally, I would like to thank my parents for being infinite source of support during my life. You encouraged me from the very first school day and raised me with intuition to always learn more and do what I am interested in. The values I will cherish even after graduation.

In Tampere, 20th of May 2018

Ville Tyrväinen

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LIST OF SYMBOLS AND ABBREVIATIONS

AR	Augmented Reality
Battle Royale	Survival game, where the last player/team alive wins the game
CFA	Confirmatory Factory Analysis
CLV	Customer Lifetime Value
CSF	Critical Success Factor
CS:GO	Counter Strike: Global Offensive
Esports	Playing video games competitively
Freemium	Business model, where core service is free, but premium features cost
MOBA	Multiplayer Online Battle Arena
MMO	Massive Multiplayer Online
MMORPG	Massive Multiplayer Online Role-Playing Game
Premium	Additional content in freemium services, which cost money
PUBG	Player Unknown's Battleground, Battle Royale -genre game
PC	Personal Computer
PvP	Player versus Player
Steam	Popular video game platform for buying and playing games
VR	Virtual Reality
WoW	World of Warcraft, popular MMORPG video game

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1. INTRODUCTION

With the current technologies, video game companies can collect immense amounts of data about their players, for example, data can be collected from micro-transaction purchases or player performance statistics. Hence, to achieve the competitive advantage, companies need to find new information sources to utilize in their business, possibly even outside of the game. One of the out-of-game factors is esports, which is a rapidly growing entertainment business: the market value is expected to reach over one billion dollars during year 2018 (ESA, 2018). Esports denotes playing competitive games according to generally accepted rules of leagues and tournaments on the internet (Weiss & Schiele, 2013). Additionally Hamari and Sjöblom (2017) defined in their research esports "as a form of sports where the primary aspects of the sport are facilitated by electronic systems: the input of players and teams as well as the output of the esports system are mediated by human-computer interfaces".

The esports scene is not only benefitting the companies, but the players as well, as prize pools and salaries for professional players increase. According to E-SportsEarnings (2018) players earned from different tournaments total of over 114 million dollars in the year 2017, and in the year 2018 total prizes have already exceeded 130 million. Russell and Schoettle (2017) state that even the big world-wide known sports organizations have started to form their own esports teams, because the popularity of the scene is growing so rapidly. Additionally, the spectator and sponsorship numbers are increasing along the prize pools. Popular Battle Royale -game, Player Unknown's Battleground (PUBG) alone achieved 200 million unique viewers within 7 months for its broadcasts (SuperData, 2017b).

The esports industry's rise to prominence has been possible, because the whole video game industry has become one of the greatest entertainment businesses. The video game industry generated total of 108 billion dollars revenue in the year 2017 (SuperData, 2017a) and 60% of Americans play video games daily (ESA, 2018), which explains how popular of a hobby the video games have become in 21st century. The video game industry has been pioneering on adapting the new technologies and, for example, the VR (Virtual Reality) and AR (Augmented Reality) -video games have already multiple billion dollars share of the market (SuperData, 2017a). One thing to notice from the video game industry is that the whole scene is dominated by a freemium business model, which generated 89% of the revenue within the video game industry (SuperData, 2017a). For example, in Massive Multiplayer Online Role Playing Game (MMORPG) -genre, the freemium games are making six times more revenue than pay-to-play games, such as the world's most popular MMORPG World of Warcraft (WoW) (Blizzard, 2018; SuperData, 2016). Hence, many

of the most successful and popular video games use or have changed to use this model to optimize their revenue (Anderson, 2010; SuperData, 2017a; Wu, Chen, & Cho, 2013).

Because freemium video games are free to download, video game companies are facing new challenges. According to Robinson (2014) over half of the players abandon the freemium video games after first gaming session. This has led to a situation where customer retention is a critical success factor for the video game project to be successful in the long run. In the freemium video games point of view retention is a two-part process: firstly, continuous usage of game, and after that the monetization, in this specific order. Successful retention consist of multiple segments, which together elevate the retention level to a point where the player is willing to invest money to the premium features (Hamari, 2015).

The intention to play the game and continuous usage have not been researched in relationship to esports. Overall the research related to video games and esports mostly considers motivations behind why people consume them. With esports besides the motivations behind watching esports, research is focused on examining whether esports is even a sport (Hallmann & Giel, 2017; Sjöblom & Hamari, 2017). Until now, the sports consumption research has focused on traditional sports side, which has many models and motivation scales for measuring the reasons behind spectating football or other sport. The intentions to play video games have already been researched, and instead of focusing on environment outside the game, most of the studies have focused on how to retain the players with the mechanics inside the game.

However, the intention to play the game does not happen without an irritant outside of the game, for example, game trailer. Similarly, esports may work as entry point to a specific video game. This is highlighted by the fact that people are consuming nowadays esports just like any traditional sports (Hamari & Sjöblom, 2017). Spectators are having game nights and gettogethers like on Sunday football, which allows people to form new kind of social communities. They are strongly connected to video game companies that make the games, as the whole scene is dependent on the video game itself.

The goal of this thesis is to find the relationship between esports spectating and intention to play video games, which is the first step of critical retention process for companies. The esports spectating influence on customer retention in freemium video games is a relationship, which has not been researched in the prior literature. Hence, this thesis aims to offer a new insight into this specific research stream. This study was carried out by empirically investigating the relationship between player motivations behind spectating the esports scene and watching, gaming and playing intentions of the game. The data gathered for the research was conducted amongst the people who both watch esports and play freemium video games (n=194).

The scope of the thesis was limited to freemium video games, because they are the most popular option for video games at the current state. Most of the existing esports scene is

also related to freemium games, as broader player base makes it easier for the esports scene to grow. The thesis does not separate the games on different gaming platforms (personal computer (PC), console and mobile), because they all have existing esports scene. Especially, when increasing number of the popular freemium games are expanding themselves to every gaming platform available. For defining an esports scene the limitations were that the sports scene must have regular tournaments and full-time professional players.

2. VIDEO GAMES AND ESPORTS

This chapter covers theory related to video games and esports. It's important to understand the basics of video game industry before reviewing freemium games more closely. After video game theory background, the next subchapter explains the video game environment and the roles of the different segments in it. Finally, the role of a player is explained in a more detailed way by going through player type literature and presenting different methods for grouping the players.

2.1 Video game industry

In this thesis video game industry is defined as industry producing video games for personal computers, mobile and console platforms, in both digital and physical forms. Video games are a rapidly growing business and it is truly challenging other entertainment business segments. The video game industry market value has already surpassed movies and music from economical point of view (Marchand & Hennig-Thurau, 2013). According to Marchand and Hennig-Thurau (2013) video game industry was valued at almost 70 billion euros already year 2013 and the annual growth was expected to be around 10-15%. The estimation was quite accurate as the video game industry value was reported to be over 100 billion at the end of year 2017 of which mobile games dominated with a bit less than 60 billion (SuperData, 2017a). The growth has been noticed everywhere, the video game market in US has grown by 67% in just seven years (2010-2017) growing from 17,5 billion to 29,1 billion USD (ESA, 2018). The market value forecasts predict that the growth trend with video games market value will also continue in the next decade.

At the moment over 64% of the US households own a gaming device, 60% of the people play video games daily and the average age of gamer is already 34 years (ESA, 2018). Therefore the stereotypes of just young boys playing video games are very outdated and according to ESA (2018) none of the gender or age segments has dominant part of the total number of gamers anymore. This leads to situation, where coordinated and successful user segmentation is critical success factor (Fu, Chen, Shi, Bose, & Cai, 2017).

Video game industry has been for past 20 years an oligopoly market to quite an extent as the 10 biggest video game companies have owned over 70% of the markets, leaving smaller companies the remainder (Marchand & Hennig-Thurau, 2013). However as the result of increased involvement level of players, for example, crowdfunding the video games (Hawley, 2016), the smaller game studios have started to gain their own share of the market. Improvement of computer technologies has also been crucial enabler for all of this as most of the games sold now are digital instead physical copy (ESA, 2018). Selling digital copy of the game requires considerably less resources from the company

lowering the barrier to enter the market. Popularity of digital copies has brought game platforms to market. The most famous example is Steam, digital distribution platform for video games, which sells the games for the players through the platform. Player buys a game from the platform and it remains downloadable in Steam as long the player's account in Steam exists. According to Steam (2018) the service has over 67 million active users monthly.

Traditionally video game revenue models can be divided to three different categories (Marchand & Hennig-Thurau, 2013): 1) pay once 2) pay regularly 3) optional payment. Pay once was the most popular option at the beginning of 21st century (Kerr, 2006). Usually this means that player pays for the game before starting to play it for the first time, and after, that game requires no more additional fees to play. Many popular video game franchises still base their model around this, for example Electronic Arts' NHL and FIFA sport games, which have their newest edition released annually. The second option, pay regularly, means that the player is forced to pay regularly to be able to continue playing the video game, usually once per month (monthly subscription). For example, world's most popular MMORPG WoW has subscription for gamers to pay every month (Blizzard, 2018). The revenue model as the scope of this research is the third one: optional payment, which is popular strategic choice for many of the game companies, because it generates on average more revenue (Wu et al., 2013). In practice this means that the actual video game itself is accessible for everyone without any payments made. However, these games usually include volunteer premium features, which the player can unlock by spending money. Therefore, the more commonly used term for these games is "freemium", free game with premium features.

In a generic video game project, the decision to invest in the game is made first, before any potential revenue. The project itself should be always a controlled risk for the company, because there is no guarantee for the success of the video game. Video game projects are usually operated in a way that video game studio first invests its resources (money, labor, technology) to the project. Then the team responsible for creating the game finishes the project. Once the game is ready, there's still no revenue for the company. Game studios typically have to invest great amount of resources to their project before any potential income (Kerr, 2006). According to Kerr (2006) the average video game projects, for PC platform, take around 15 months and the biggest game projects may take years to finish. Because of this marketing and customer retention have become critical success factors (CSF) for video game. Marketing draws attention for players who preorder the game without even trying it, which is valid situation for over 40% of the players (ESA, 2018). Customer retention is a necessity for all the video games, but especially for the video games, which are based on optional payment from the players. This is because the whole revenue is dependent on volunteer payments from the players (Hawley, 2016). Even though making the game available for free would seem risk not worth taking, the freemium games are generating six times more money compared to pay-to-play games in

Massive Multiplayer Online (MMO)-genre (SuperData, 2016). In order to optimize the revenue from a particular video game, consistent customer management is required. Therefore gamers interested in the video game of the company should be seen as greater entity than just as monetization tool (Joo & Sohn, 2008).

2.2 Freemium model in video games

Freemium business model refers to a model, where one offers the core product or service for free, but premium features are available with optional payment (Kimppa, Heimo, & Harviainen, 2016). In other words the freemium business model involves providing the basic version of product or software (in thesis' case video game) for free, with the intention of turning sufficient number of customers to pay for mode advanced version of the product or service (Holm & Günzel-Jensen, 2017). The freemium business model can be seen as an answer from producers to users as newly born need to meet customer's requirements for new monetization patterns (Reime, 2011). According to Reime (2011) Web 2.0, the internet of next generation, has enabled the birth of new business models, where all the users produce content to the internet, usually for free. This has led to a situation, where the video game players are expecting to receive the core of the video game free of charge. Because of this approach, the whole freemium game revenue is dependent of the volunteer purchases of digital goods by its players (Hamari, 2015).

Freemium games revenue is created from the players, who are willing to invest money on the premium features. According to Anderson (2010) the retention rate for most of the freemium games is around five percent. In order to attract the paying players, video game companies have created caveats in the gameplay, which make players more likely to purchase the items (Hamari, 2015). One popular method is to restrict content from the players and benefit from player's impatience. As average player does not have unlimited amount of time to play, video game companies provide them with option to acquire wanted objects, sooner than normal gameplay would allow them (Evans, 2016). Limiting the game advancement from free-to-play players, with playtime or features, is always balancing between the joy and monetization (Hamari, 2015). If the company focus too much on monetization over the joy player feels gaming, the retention rate will likely decrease for the video game (Robinson, 2017).

Freemium model also changes the traditional consume patterns as people tend to use remarkable amount of time doing price comparison, when planning to acquire a new product (Reime, 2011). With freemium games there are no reasons to do price comparison, as the player can just download the game and try it out before deciding whether to invest money into game. This creates challenges for the customer retention, because a low entry barrier creates a low exit barrier too, which in practice means that many of the players leave the game after first session (Robinson, 2014).

According to Anderson (2010) over 95% percent of the mobile games revenue is generated by freemium games, so freemium could be described as a robust business model of the digital age. There are many great examples of companies doing freemium business successfully, for example, Supercell and its popular mobile games (SuperData, 2017a). In most cases, for example, Spotify and LinkedIn, users will not even identify them as freemium service, (Holm & Günzel-Jensen, 2017). Even the percentage of the revenue from freemium games on PC, 69%, is not as high as on mobile video games, it is still clear that freemium dominates the video game industry.

2.3 Video game environment

Video game as an entity is more than the actual game and all the activities done within the game. Single video game consists of the actual game environment and supportive processes, which are, for example, supply and communication channels. The whole framework is visualized in Figure 1, which is adapted version of model planned by Marchand and Hennig-Thurau (2013).

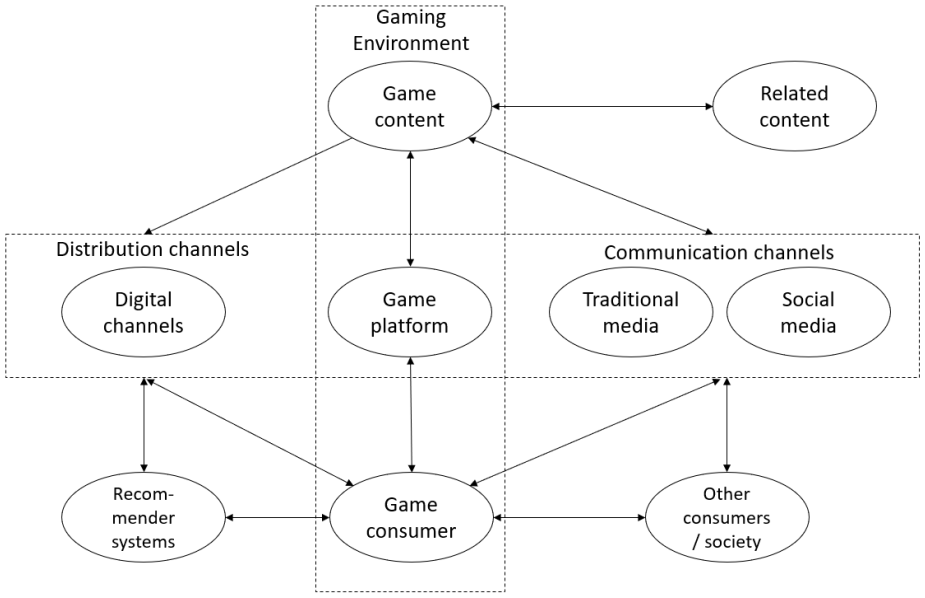

Figure 1. *Video game environment adopted from Marchand and Hennig-Thurau (2013)*

The game environment has three elements: the game and all its contents, gaming platform, and the user (Marchand & Hennig-Thurau, 2013). The game environment is marked in Figure 1 with areas marked with dotted lines. According to Niculescu and Wu (2010) the game environment is the most important factor for player satisfaction. Weinstein (2002) agrees with Niculescu and Wu (2010) that understanding the consumer role in the gaming environment is very important in customer satisfaction.

On the top right corner of the Figure 1 is content related to the actual game, which in this case can be e.g. ongoing esports scene for the same video game. Equally important part

is located on the bottom of the figure, the consumer, who makes decision according to video game and gaming platform (Hamari, Hanner, & Koivisto, 2017). At the current state user data is collected directly from the user and the user's in-game data, e.g. player statistics, where the gaming platform works as connector between these two (Voigt & Hinz, 2016).

Nowadays the communication channels, located on the right side of the Figure 1, have increasing importance for the whole process as user's demand for available information and news is increasing continuously. Especially social media and the communities building around the video games are remarkable factors in single video game's success (Ruggles, Wadley, & Gibbs, 2005). This is one of the reasons why other gaming platform, besides PC, for example, Xbox360, are implementing ways to improve the usage of browser and social media applications.

2.4 Player types

To understand video gaming comprehensively, one needs to understand the players and their differences. According to Bartle (1999) there are four different elements, which players typically enjoyed during their gaming in multiplayer games. These are achievement within game context, exploration of the game, socializing with others and imposition upon others. Achievement means that players set game-related goals, which can be either built in-game or decided by players themselves, and they are trying to achieve those goals. Most common goals in MMO can be for example: obtaining better gear, beating boss monster or improving in PvP (Player versus Player). Exploration of the game means finding out about the in-game world as much as possible. This can be either exploring different parts of the in-game world or co-living the story of the game. Socializing with others means co-acting with the other players in the game. Most of the MMO games typically have possibility for the players to create clans or guilds and form parties to complete quests and missions together in-game. Final enjoyment element is imposition upon others. Bartle (1999) describes this as causing distress to other players, or in some cases helping, with tools provided by the game.

There has been a variety of research done by researchers related to video game players, their habits and classification of different players. A prominent way of dividing the player base in the past has been casual and hardcore players (Hamari & Tuunanen, 2014). According to Bateman et al. (2011) the main difference between these two types is not one's willingness to persevere in the pursuit of victory, but rather "hardcore" players have greater capacity for the imaginative play. The same can be applied even esports video games, usually the best players are the ones, who are able to optimize their playstyle with imagination and trial-error. Jacobs and Ip (2005) did not compare casual and hardcore players with capability to imagine, but in terms of dedication towards the game. The dedication does not necessarily mean investing more hours than casual players, but they acquire more knowledge of the game compared to casual players. Hardcore players do not

waste their gaming hours on just casually playing, but rather aim to improve their gaming; hence they tend to be better than average player.

Unlike in the casual-hardcore -model, other research models see these two more as one attribute of the player, rather than a player type. One of the most popular player type models is Bartle's model (Bartle, 1999), which divides players into four quadrant, each quadrant corresponding to one of the four observed play style preferences. This model is based on observing and analyzing the behaviors of people playing together in a multi-user game. According to model there are only four different kinds of play style interests (Stewart, 2011), which Bartle named Killer, Achiever, Socializer and Explorers. All the player types are visualized in Figure 2 with both axis describing of which part of the video game the player is more interested in.

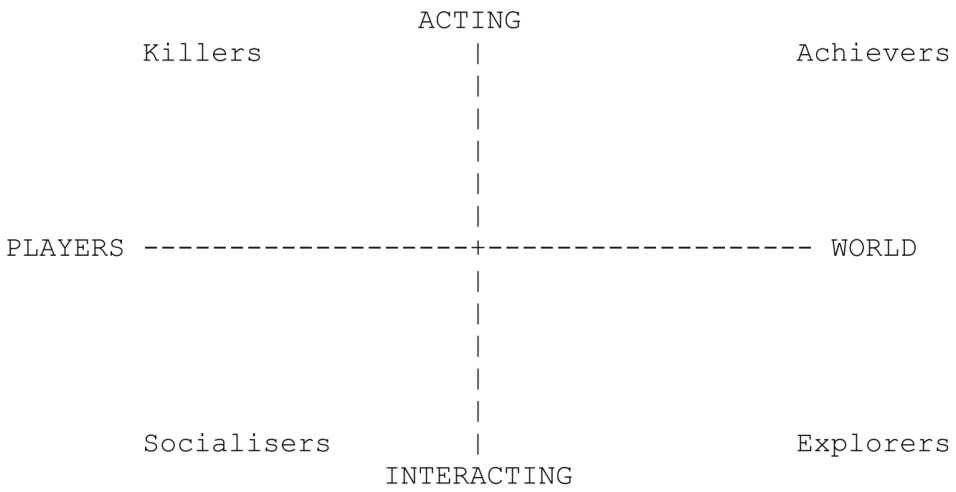

Figure 2. *Video game player types according to Bartle (1999)*

According to Stewart (2011) achievers are very goal oriented and their main goal in typical MMO games are leveling up and dominating the leaderboards. According Bateman et al. (2011) people playing multiplayer-games describe themselves more often challenge-oriented persons. Explorers gather knowledge about the game as much as they are capable. They are interested in discovery, rather than competition (Bartle, 1999). It is more enjoyable to find the new content or patterns before everyone else instead of being best out of all executing them (Stewart, 2011). Socializers are interacting with people. Instead of focusing only in game content, they are eager to get to know people and form relationships with other players (Bartle, 1999). Killer type focuses on showing their superiority over other players (Bartle, 1999). They are only interested in knowledge, which can be applied to game areas, that benefit in their goal of dominating the other players.

The Bartle's model approach has one remarkable problem, there is no scalability in the types. Other research has stated that players are most likely a combination of different types (Bateman et al., 2011; Jacobs & Ip, 2005; Stewart, 2011). For that reason, other

popular approach for player types is focusing on gaming motivations. These cannot be used similarly as player types, but more like a possible basis for psychographic segmentation based on motivations for playing (Hamari & Tuunanen, 2014).

In theory, Yee et al. (2012) online gaming motivation scale helps in identifying motivations behind gaming, and other studies focusing on the actual behavior should be able to find the connections to these motivations. In the original research about motivations behind gaming Yee (2006) found out that there are three bigger components affecting player's motivations towards gaming. These are achievement, social and immersion components, which accounted 55% of the overall variance in the research by Yee (2006). The components and their subcomponents can be seen in Table 1. All the subcomponents have many in-game elements linked to them, but to keep table simple they have been excluded from it.

Table 1. *Components and subcomponents for motivations of play according to Yee (2006)*

Component	Subcomponent	Explanation
Achievement	Advancement	In-game progress related content
	Mechanics	Optimizing the in-game mechanics
	Competition	Competing with or versus other players
Social	Socializing	Socializing with other players with the tools provided by game
	Relationship	Relationship with game and other players
	Teamwork	Cooperation between players for different in-game goals.
Immersion	Discovery	Exploring the game
	Role-playing	Co-living the game with story, character and fantasies
	Customization	Customizing character and other content
	Escapism	Possibility to escape from real life

The first component behind motivation for gaming according to Yee (2006) is achievement. No matter of the player type or their motivation to play a single video game, players always have some goals they want to achieve during the gameplay, some have more serious and some more casual goals, e.g. one wants to improve PvP skills and one wants to advance to the next dungeon. The final achievement for every player is beating the game,

which has been proven to be major motivational factor for players (Hamari & Tuunanen, 2014). Maybe the biggest subcomponent esports-wise in this main component is competition, which according to Martončik (2015) is a very big factor for the success of esports, because people have a natural need to compete against each other.

The social component of Yee's motivational model is all the social (inter)action in-game. Most typical way of interacting with other players are chat tools and other similar solutions in video games. Especially in MMO's people usually create clans and guilds for like-minded people to pursue their goals together. This also includes personal relationships with other players, which can lead in some cases to deeper relationships. Relationships also include in helping and giving support to each other (Yee, 2006). One final subcomponent is teamwork, for example, clan members clearing a dungeon and a dungeon boss together.

The last component is immersion, which refers to how players co-live the game and events. Stewart (2011) states that especially hardcore player behavior implies a significant level of immersion. The immersion includes subcomponents: discovery, role-playing, customization and escapism (Yee, 2006). Discovery means exploring the game, following and learning about the story and finding things, which most of the players have not found yet. Role-playing is just like normal role-playing in real life, expect in this case it is done in-game, for example, in many MMOs the player can create an elf, an orc or a dwarf as their character. Customization is closely related to the previous subcomponent, as games usually offer a possibility to customize the looks of the character, some to more specific level than others. The escapism is a similar phenomenon compared to spectating traditional sports, in terms of how people can escape day-to-day activities by playing video games.

3. ESPORTS CONSUMPTION AND RETENTION

This chapter will go through the definition of esports and what the whole phenomenon is about. In addition to this, the motivations behind sports consumption and the differences in esports consumption are reviewed in a separate chapter.

3.1 What is esports?

Electronic sports, commonly referred as esports, is defined according to Hamari and Sjöblom (2016) as "a form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are mediated by human-computer interfaces". In practice this means competitive video gaming, which has its own leagues and tournaments like any traditional sport. Esports has grown rapidly during the past years and this has increasingly drawn attention of audience and companies. According to research, League of Legends, world's most popular MOBA game, alone had over 157 million unique viewers during year 2017 (SuperData, 2017a), and the numbers for popular new Battle Royale -games may be even larger for year 2018. The wide viewership also attracts business in many ways, which has led esports into a state that it is generating over 1,5 billion dollars revenue during the year 2018 and the growth is expected to be over 25% by the year 2020 (SuperData, 2017b).

Esports is a rapidly growing business area and the situation can somewhat be compared to traditional sports in late 1800's and early 1900's (Hutchins, 2008). The pace of change within esports and gaming industry, including computer technology also made it hard to conduct academic research on this topic, when there was not even a commonly used term for the whole phenomenon (Carter & Gibbs, 2013; Hutchins, 2008). The research done within the video game called EVE Online by Carter and Gibbs (2013) was one of the very first esports related studies, even though the scope was in one single video game and its competitive environment.

3.2 Sports spectating

Watching sports has been a long tradition from the very first Olympics held over 1200 years ago. The traditional sport has earned its spot as a predominant form of leisure behavior in contemporary society (G. T. Trail & James, 2001). In traditional sports the attendance rates have been high for decades and just in the year 1996 in the USA there were over 110 spectators attending the professional sports league events, which generated over 2,7 billion dollars revenue (G. T. Trail & James, 2001). This was an amount that was bigger than esports currently generates in the whole world. According to Trail and James

(2001), for example, only a television advertisement generated 3,5 billion dollars for broadcasting companies in advertising revenue already in the year 1995.

3.2.1 Traditional sports consumption

Studies have divided sports fans generally into two different categories: fans and spectators (Appelbaum et al., 2012). Even though many qualities of these categories overlap, there is one major difference between these two: a person who is categorized as a fan is associated with an emotional link to a sport or a team, while a spectator is more individual about the spectating experience (Appelbaum et al., 2012). According to Melnick and Wann (2010) for most of the fans the link to the sport is actually stronger than to the club. The emotional link can also have some concrete effects on one's body. According to Bernhardt et al. (1998) fans of the winning team have higher testosterone levels after the game than the fans of the losing team, who even had decreased level of testosterone compared to their normal levels.

Giulianotti (2002) took the categorization one step further with four categories: supporters, fans, followers and flaneurs. During the past decades the identities of spectators and their relationships to sports clubs have gone through many changes. Hence, the old theories are no longer valid without iterating (Giulianotti, 2002). The axis-measures are horizontally traditional and consumer, and vertically hot and cold. The horizontal measure is related to the individual's investment in the club. Consumer in this case means a person, who is more market oriented compared to a traditional person, who usually has more local and cultural identification with the club instead of a pure money investment. The hot-cold vertical bar reflects the different degrees to which the club is central to the individual's project of self-formation (Giulianotti, 2002). Hot forms of loyalty and emphasizes intense kind of solidarity to the club and cold on the other end of scale means that the spectator is less loyal towards a single team, for example, they tend to change team according to success.

The current research of sports spectating has focused mostly on explaining what kind of people are watching sports and how do companies promote the participation numbers to their events. This includes analyzing the reasons for attempting sports events and what factors are related to the whole sports experience, for example. talking about past events with social contacts and listening to the results from news or radio (Melnick & Wann, 2010). Appelbaum et al. (2012) highlight in their own research that watching sports has wider effects in life, as according to their research a person's sports viewing habits can be used to predict other parts of their life as well.

Trail and James (2001) focused their research on the motivational reasons behind the sports spectating by building a motivational scale, to have deeper information on the reasons behind watching sports. Demand-based research contributes to understanding short-term variable factors, for example, nice weather, that influence decisions to attend sports

events (G. T. Trail & James, 2001). To be able to distinguish between the people who merely enjoy watching sports and people who think it as important part of life, it is necessary to understand the psychological motivations behind using resources into watching sports. A wide number of reasons have been identified, e.g. drama, escapism, and social interaction (Appelbaum et al., 2012; G. T. Trail & James, 2001). Generally, companies and sports clubs are interested in fans, who see sports as a part of life, because they are more likely to invest money.

The original Sport Fan Motivation Scale (SFMS) for sports spectating was designed by Wann et al. (1999). To improve the scale being used for measurement Trail and James (2001) came up with a new model: the Motivation Scale for Sport Consumption (MSSC), which was designed according to the Motivation of the Sport Consumer (MSC) (Milne & McDonald, 1999), SFMS and other literature. In addition to that, Trail and James (2001) used sport sociology literature to examine the factors representing the motives for following sports. The factors are determined in earlier research done by Trail et al. (2000) and they are presented in Table 2.

Table 2. *Motivational factors for sports consumption (Trail & et al. 2000)*

Factor	Explanation
Achievement	Empathizing and co-living with the achievements of the teams and players
Acquisition of knowledge	Degree of consumption enabling an acquisition of knowledge
Aesthetics	Elements of beauty or gracefulness which are inherent in the sport
Drama/eustress	The enjoyment of uncertainty and dramatic turns of events
Escape	Escape from day-to-day routines and distraction from daily activities.
Family	Degree of family being involved in.
Physical attractiveness of participants	How attractive the esports players are seen by the spectators.
The quality of the physical skill of the participants	Degree of appreciating the skills of the players.

Social interaction	Socializing with other spectators.

MSSC has also been used in other research, for example, by Hamari and Sjöblom (2017), which supports using these factors for analyzing the intention to watch esports within this study as well.

3.2.2 Esports consumption

Esports spectating differs from traditional sports in several ways. Possibly the biggest difference still is that esports teams do not have any physical stadiums, where the games would take place. In practice this means that the chances for teams to gather followers are more limited compared to traditional sports clubs, because there are no geological or historical reasons to root for a certain team. Therefore, the professional league of the video game Overwatch, Overwatch League (OWL), is planning to build home arenas for all the teams playing in the league in the near future as a partial solution for this problem (ESPN, 2018).

Another key difference to notice is that unlike in traditional sports, the whole esports activity is computer mediated (Hamari & Sjöblom, 2017). Even though most of the broadcasts and media in traditional sports are also in computer mediated form, the actual performance is still done physically. Another key aspect worth noting is that esports games have overall a more complex structure and a lot of single performances are happening constantly. In traditional sports a single act, for example, a good free kick, is easy to determine, but in esports there is no clear determination for similar performances.

Chapter 3.3.1 listed nine key factors behind sports spectating motivations. Even though names of the factors are quite self-explanatory, it is important to acknowledge what they mean within the esports context. Even though there are similar aspects in both traditional and esports, there are still some differences when explaining the factors behind one's motivations in watching esports. Besides the difference in the nature of esports and how determining single skillful performances is much harder, the key difference is that there might be partially different motivations to spectate esports compared to traditional sports. For example, acquiring knowledge compared to traditional sports is remarkably different. Spectators can follow the matches from the player's point of view, so they see exactly what professional players do and the replays for the single events are instantly available. Also, the data gathering is more automated as video games gather data automatically and the only limitation is the video game company's willingness on what extend they share the statistics and other data with the players. One great example are all the fan sites for different MOBAs, which are tracking the optimal item builds for different heroes according to the win rate and other crucial statistics for separate heroes.

The factors introduced above have a meaningful impact on consumption of esports according to literature. Maybe the most complex thing related to esports is still the fact that because of the age of the whole phenomenon, the whole esports scene is still developing rapidly. This creates a challenge for the research as the subject is constantly evolving, which makes older design models questionable.

3.3 Social communities in video games

Social communities, in video game context usually online ones, have been proven to be a very beneficial factor for the video game companies (Arakji & Lang, 2007; Burger-Helmchen & Cohendet, 2011; Hau & Kim, 2011). Communities can be built around esports and their streaming, as Hamilton, Garretson and Kerne (2014) proved in their research for Twitch.tv (popular streaming platform) streams overall. The players are in many cases experts of the game and their knowledge should circulate through social channels towards the company (Burger-Helmchen & Cohendet, 2011), instead of remaining inside the communities or in worst case within the players. With the new dimensions the new IT is permeating, companies should abandon the conventional separation to companies and customers by including themselves as a part of the communities.

The relationships formed within the virtual or real community have huge influence for one's decisions. According to Voigt and Hinz (2016) and Hsiao and Chen (2016) one of the most important additional value creators in video games is social value provided by communities. Therefore, it is not surprising that over 60% of MMO-game players report to play with their friends (SuperData, 2016). In practice this can mean either playing with friends from real life or playing with newly formed social connections, which are enabled by the in-game mechanics such as in-game chat. Wang et al. (2011) mention in their research that real-life contacts have tens of times more influence on one's decisions. This has lead the gaming industry to a situation where the in-game experience is not enough, but players also gain satisfaction and additional value from the outside-of-game factors like social experiences (Wang et al., 2011), which are the most common activities for communities.

Most of the communities in video games are formed online, over the services provided over the internet. An online community can be defined as a group, which shares common goals and ideas and do their communication through the internet (Burger-Helmchen & Cohendet, 2011). The most common difference between online communities and more traditional communities is that there are no geographical or ethnic limits for the members of the community, because in-game and online these factors do not matter (Burger-Helmchen & Cohendet, 2011; Hsu & Lu, 2005). The diversity within the communities brings benefits for the video game companies, but also challenges as people with different backgrounds require different methods for maintaining the communities (Burger-Helmchen & Cohendet, 2011).

As for belonging in any entity, belonging to a game community means that its members have certain expectations of the benefits of the membership. According to Lin (2006) virtual communities are expected to fill the need for communication, information and entertainment. Usually the gaming communities are focused around a video game or genre and the topics considering it, so people can share their knowledge and interests together (Burger-Helmchen & Cohendet, 2011). As the communities tend to possess great variety of knowledge related to the game or genre, video game companies have started to take advantage of crowdsourcing in video game related projects. For example, people can plan their own maps in Counter Strike: Global Offensive (CS:GO), and some of them have even been implemented into the game. This level of expertise and knowledge about the game or genre is very valuable for the companies, and that's why the communities can also be a source of expert knowledge for both other member and companies (Ho & Huang, 2009).

The communities have many uses and game communities can utilize themselves in many ways. For example members can post and reply to comments, share their feedback and suggestions about the game to developers and iterate new ideas (Gidhagen, Ridell, & Sörhammar, 2011). The last two examples have also lead to situations where the video game communities are seen more like a crowdsourcing resource, which provides unique tools and possibilities for the video game companies and publishers to improve their service.

4. CUSTOMER RETENTION

The traditional customer retention starts already when choosing the service to use from the options. However, in the freemium video games market, the choosing process is not as important compared to pay up front video games, as the game with core features is free to play, which attracts a vast number of players (Holm & Günzel-Jensen, 2017). This makes the entry barrier for freemium services low for the customers. Therefore, the main focus with freemium products, according to Hawley (2016), should be in marketing and other methods focused on attracting the customer's attention.

Because of the popularity of freemium, its general features are slowly taking over traditional video games, which has led to a situation where the most successful video games are the ones with best customer retention in a long-term time frame (Hawley, 2016). This is the main reason behind increasing the Customer Lifetime Value (CLV) compared to short-term relationships between video games and players, where the player only tries out the game for a maximum of few times (Voigt & Hinz, 2016). Fu et al. (2017) highlight that to optimize CLV, analysis of individual customer needs and customer analysis overall is very important.

As Weinstein (2002) states, even a five percent increase in customer retention may increase CLV by 25-100 percent. Besides the retention rate and numbers, it is important to remember that the conversion rate on players does not reveal the general view (Kumar, 2014). The freemium services tend to attract more users, because they are free to try, but equally easy to abandon (Holm & Günzel-Jensen, 2017). Hence, it is also important for freemium service providers to pay attention to how many new users the service attracts in the long run. If the service fails to lure more new users over time, there is likely something wrong in the current freemium features being offered to the customers (Kumar, 2014).

Even when freemium services require the flow of new users, it is important to notice that the most important income source for companies is retaining the existing customers. According to Reicheld (1996) it is more efficient to be "picky" about customers. There is no reason to focus on retaining all the users, but to aim your retention towards users, who have the biggest revenue potential. This is the most efficient strategy also resource-wise, because obtaining new customers takes five times more resources compared to retaining current customers according to studies. (Weinstein, 2002) However even with perfect retention processes, companies must admit that there are also users leaving the service, which leads to the main goal: optimal retention rate.

4.1.1 Key factors in retention

The customer retention model chosen for this thesis is the Customer Retention / Value model by Weinstein (2002), because it is generally one of the most cited and acknowledged customer retention models. The model is built around three different segments: attraction, value creation and retention. The model was adapted for the scope of the thesis by focusing on customer retention and excluding the value-side of the model. The adapted version of the model is shown in Figure 3.

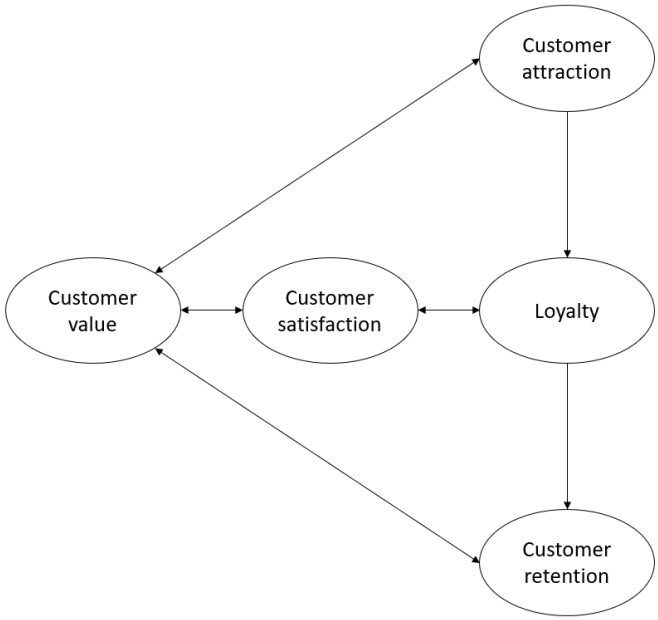

Figure 3. *Adapted version of Weinstein (2002) customer retention model.*

Most of the research states that the most important factor in customer retention is customer satisfaction (Hamari et al., 2017; Voigt & Hinz, 2016; Weinstein, 2002), which in short means how well the user's expectations towards a service are met (Oxford Reference, 2018). The better expectations are met, the happier the customer is, or in the best case scenario the expectations are exceeded (Weinstein, 2002). According to Kotler (2000) satisfied customers are more likely to stay loyal towards the service, are more positive about the service and are less price critical, meaning even if the company raises the prices for the service, they are less likely to abandon the service. Satisfaction also increases the likelihood of the player's intention to keep playing the game, which also increases the potential to spend money on the game (Hamari et al., 2017; Voigt & Hinz, 2016).

It is important to differentiate that customer satisfaction does not equal loyalty (Stratigos, 1999). One may have very satisfied customers without them being loyal to the service. The most important measurement indicators for customer satisfaction are content, user interface, user support, and introduction (Stratigos, 1999), which can all be found from

the video gaming environment as well. Needs of the user develop during the service lifetime, so it is important for the companies to adapt for the changing requirements (Voigt & Hinz, 2016). Adapting is also important for attracting new customers as the user base rarely stays stable, and changes attracting new customers most likely have positive effect on current customers, too. Especially new technologies related to IT-solutions have created unique possibilities with the feedback channels, so the companies are capable to gather more personal feedback for the improved service to fulfill the customer's needs (Lu, Fan, & Zhou, 2016).

Customer loyalty means a deeper relationship between the user and a service compared to customer satisfaction. Loyal customers invest money, recommend the product to others and share their knowledge and opinions (Stratigos, 1999). According to Stratigos (1999) the most important factors affecting customer loyalty are the perceived value by the customer, compared to the money and time invested to the service. These affect the customer loyalty indicators greatly, namely the intention to use the product in the future, the probability to recommend the product and the probability to take produced content related to the product (Stratigos, 1999). The most important of these is the intention to use the product in the future, because without usage hours, the customer will not likely have positive results with other indicators either. To sustain the loyalty level, it is also important to pay attention on personalized service for the user. Therefore, companies should pay attention to noticing different user levels within the game. One way to assure this is that all the users have the possibility to test the game suited best way for them in the early stages of the game (Robinson, 2017).

In Figure 3, the customer value means the value that the user experiences of the service, for example, a video game. According to Weinstein (2002) customer value consists of quality, service level, and price (QSP). With these components companies create customer value and maintain the customer relationships. The quality of the service is closely related to customer value, because the higher quality the service is, the more likely the customer's expectations towards the service are fulfilled. Service level is important for any company, because according to studies over 70 percent of the customers abandon the product or service, because of bad service level (Weinstein, 2002). The price of the product means in this model the price's correlation to everything else: product, service, and quality. However, in freemium games the context is a bit different, because the product itself is free. Within the freemium model the price can be seen through how much the additional digital premium content costs compared to perceived quality and value by the customer, in other words to the QSP-entity.

All the components mentioned earlier are related to customer attraction, which is located on the top of the Figure 3 (Weinstein, 2002). Customer attraction is not only important to maintaining current customer relationships and improving customer's QSP. As earlier mentioned, there are always users abandoning the service, especially in video games. Therefore, it is also necessary to focus on attracting new customers for maintaining the

desired user base. However Fu et al. (2017) mention in their research a new viewpoint that companies are nowadays actually focusing too much on analyzing data and customer retention, which has caused them to neglect the actual planning practices and guidelines for customer attraction.

4.1.2 Retention and attraction in freemium video games

The current research states that over half of the players abandon freemium games after the first gaming session (Robinson, 2014). Therefore, Anderson (2010) suggests that companies should aim for between five and ten percent retention rate with paying customers in freemium games, Holm and Günzel-Jensen (2017) mention that the rate might be even lower. This is also known as the five-percent-rule in the game industry, where the objective is that five percent of the players both cover the cost of free players and turn the profits for the company, because the costs caused by non-paying customers are practically non-existent. According to McGrath (2010) this is all possible, because costs per player have decreased drastically since the beginning of the century. For example, nowadays it is practically free for the companies to buy more server capacity and cloud storage compared to what it was ten years ago.

Some of the video game companies have managed to hit almost 20 percent conversion rates, but the most successful companies are near the average, which is below 10 percent. For example the most popular video game in the world: League of Legends, with over 80 million players, had 8,8 percent conversion rate in the year 2016 (SuperData, 2016). Riot Games, the game company behind League of Legends, could go for a higher conversion, but there is a solid reason for not doing so. According to Kumar (2014) aiming for average conversion rate is the most profitable option for the gaming companies. This is because too high of a conversion rate into paying customers might have a reverse effect in the long-run, causing the game's conversion rate to decrease below the target average number. Therefore, it is better for companies to have a steady, around the industry average, retention rate for the optimized average revenue per daily active user (ARPDAU), because it prevents sudden drops on projected revenues. Robinson (2017) mentions that freemium video games are, from the retention point of view, balancing between the attraction of the game and monetization. If either part is too dominant, the video game will likely struggle with retention.

A video game's attraction is based on how valuable it is for the customer, in other words how much does the player enjoy playing the game. The better the company is at handling the components affecting customer retention, the more optimized attraction the user experiences towards the video game. The customer's perceived value towards the product is the sum of gained benefits and sacrifices made in resources (Smith & Colgate, 2007). The benefits gained are all the elements (see Table 1) that are the consequence of playing the video games, while sacrifices are the wasted resources, e.g. money and time. There are many definitions for the value felt by the customer towards the service according to

Smith and Colgate (2007), one of them is the actual customer perceived value. Because video games are mostly experiences and emotions, the player can be seen as the source for creating the value (Gidhagen et al., 2011). Hence, companies should involve the players as closely as they can for better retention.

Gidhagen et al. (2011) underline the importance of being active in the cooperation process with the players for the companies. The gaming company is supposed to be the one controlling the relationship between themselves and the players and how it improves, e.g. knowledge sharing. Wilson (2014) mentions that from the player point of view it is enough for players to feel like they are in control, even if that is not the case. By doing so the players are integrated more effectively into the game and more willing to participate to the process, for example. sharing knowledge, which creates permanent value between the parties. Also Smith and Colgate (2007) state that precise determination of value creation within the industry increases the possibilities of perceived value by customers. There are five different value creation sources according to Smith and Colgate (2007) but for the video gaming industry only three are relevant: cooperation between parties, the product, and the product environment, which in video gaming industry means everything connected to the actual video game, e.g. forums, community sites or other games from the same video game company.

Freemium video game retention is a challenging environment for the video game companies. Video games are likely to attract a vast number of downloads, but simultaneously most players abandon the game after first session. The video game companies should focus on both having great number of active players and from those having enough players with purchase intention, if either number is too low, the video game will not succeed. One crucial segment is involving players comprehensively to the game, because prior research states: the more the user feels capable of influencing the process, the more satisfied they are (Stratigos, 1999). Hence many video gaming companies have introduced design and social tools, which players may use to plan their own content for the video game. Social tools by the companies are helping the players form social communities around a common area of interest, e.g. the video game, designing new skins or weapons.

5. HYPOTHESIS BUILDING

The current technologies have enabled the video game companies to be efficient with analyzing the in-game data gathered from the players. However, measuring the out-of-game factors, like esports, is still an unutilized area, especially from an academic research point of view. This thesis' main goal is to study the relationship between esports spectating and the intention to play video games. For the analysis of the survey data, this thesis uses the following research model presented in this chapter, which includes total of 11 hypotheses built according to existing literature within the esports context.

One of the main reasons for the video game company to use the freemium model is to draw a large amount of downloads for the game (Anderson, 2010). The prior empirical research has proven the relationship between gaming intention and purchase intention (Hamari, 2015). This relationship is included in the research model to improve the certainty of the link between these two factors by more research results. However, there is no existing literature about the relationship between the watching intention of esports and gaming intention of the video game. Bhattacherjee's (2001) research stated that the continuous usage of the service is important in retention. Likewise, it is possible that continuous esports spectating is connected to the intention to play the video game. Therefore, this thesis hypothesizes that:

H1. The watching intention of esports is positively associated with the gaming intention of a video game.
H2. The gaming intention is positively associated with the purchasing intention in a video game.

Achievement refers to the degree the spectators co-live with people and characters in media content (G. Trail et al., 2000). In the esports context this co-living refers to how the spectator feels about achievements of teams and players (G. T. Trail & James, 2001). Usually living along the team's or player's results is easier if the content being followed is easily approachable. Hamari and Sjöblom (2017) mention that esports athletes can be more easily approachable than their regular sport counterparts, because they have more interaction towards their fanbase. For example, many of the most popular esports stars are active streamers and use their social media accounts very actively. This is a great way to lower the barrier between the followers and the athletes and create more opportunities for followers to co-live the life of their idols. Therefore:

H3. Achievement is positively associated with the esports watching intention

Acquisition of knowledge means to what extend media consumption enables acquisition of knowledge about the media being consumed (G. Trail et al., 2000). Esports has its own

skill-based aspects in all the video games, just like any sport. Traditional sport has had two cognitive motivations for spectating: learning from teams and players and gathering information to be shared in conversations (Hamari & Sjöblom, 2017). Where in an ice-hockey match one watches how the professional player skates or shoots, in esports one watches how the player executes a skill combo of a character or how the player rotates around the game map to optimize their impact during the game. According to Hamilton et al. (2014) knowledge acquisition has been proved to be an important factor within video game streaming. Based on these findings, this thesis hypothesizes that:

H4. Acquisition of knowledge is positively associated with the esports watching intention

The third factor, aesthetics, means the elements of beauty in the sport, which are inherent (G. T. Trail & James, 2001). For the traditional sports, visual elements have been proven to be important factors for the motivation to spectate (Wann & Wilson, 1999). However, in esports, the spectators are most of the time viewing the gameplay instead of the players, and even in video game streams, most of the screen is filled with gameplay. Still, Hamilton et al. (2014) mention that affective motions have shown impact on use of video game streaming. Even though there is an impact with aesthetic factors, one could claim that the impact is not on the same level with traditional sports on impact level. This is because the actual players are not visually as much in the spotlight compared to traditional sports. On another point of view, the actual game events, e.g. team fights and chained skill combos, could be aesthetic elements like a beautiful free kick in football. On the top of that, the whole gameplay might for some spectators be an aesthetic event, where the spectator is able to live one's fantasy in the video game world. Therefore, this study hypothesizes that:

H5. Aesthetics is positively associated with the esports watching intention

Drama has been shown to be an important factor to sports viewing in general (Peterson & Raney, 2008), and therefore, drama is the fourth factor of the MSSC-model (G. T. Trail & James, 2001). Drama in this context means the uncertainty and dramatic turns in the outcomes of the media content, such as sports. In the esports context some of the video game companies are increasing the possibility of the drama intentionally by adding some randomness and asymmetry into the game (Cheung & Huang, 2011). In practice this means usually increasing RNG (random number generator) situations, where an event has a fixed chance to occur or not. When the random event occurs, surprises might happen and even the underdog has a chance to win. Based on the findings, this study hypothesizes that:

H6. Drama is positively associated with the esports watching intention

One of the biggest reasons why people watch any media content such as sports is the possibility to escape. In this context escape means the possibility to get away from day-

to-day routines and a positive distraction from daily routines (Kim & Ross, 2006; Wann et al., 1999). According to Yongjae and Ross's (2006) research escapism was the second biggest factor for playing and watching video games. Compared to traditional sports esports could provide a lower barrier for escape, because esports are broadcasted live every day and at least for now, all the broadcasts are free for spectators to watch. Considering how low of a barrier there is to watch esports with current technologies, thus:

H7. Escape is positively associated with the esports watching intention

Family naturally refers to the media content factors related to family, for example with sports going out to watch game with family, talking about games before and after etc. The degree of family being involved in spectating sports may affect greatly to one's intention to use media content (G. Trail et al., 2000), for example sports. If one's parents have been taking them to the local team's games since they were young, there are much greater odds for one's sport consumption compared to a person whose parents did not do the same. However, because of the nature of the esports and how relatively young the phenomenon is in the first place, most parents have not really experienced the whole esports themselves. This is likely a reason why for example Hamari and Sjöblom (2017) have excluded the family factor and include only the social interaction factor, because it better describes how the social communication around the esports context works. Hence for this thesis' survey the construct is adapted to include friends for better adaptation with esports. Accordingly, this study hypothesizes that:

H8. Family and friends are positively associated with the esports watching intention

Social interaction means the gratifications related to socializing with other media consumers (Hamari & Sjöblom, 2017). Socializing has been shown to have a great impact in both traditional and esports (Hamilton et al., 2014; Wenner & Gantz, 1998). According to Hamari and Sjöblom (2017) esports spectating is usually linked to a stream's own chat that can be used to comment on the events occurring in the game and cheer for teams and players. The computer mediated structure of the esports means that it is quite logical to form social connections through the same channels. The other point to notice is the popularity of VOIP and other similar solutions among the esports followers and especially video gamers. Even most of the biggest esports organizations have, for example their own Discord (popular VOIP service) servers, where the esports fans can meet, greet and talk about the esports events. The social aspect might be greater than the earlier research has stated, Hamilton et al. (2014) highlight that in their research there were two reasons to watch streams: unique content of a particular stream and interacting with and participating in a stream's community. Also Sjöblom and Hamari (2017) stated that a stream's community is an important factor. Agreeing with the importance of social interaction with other research, this study posits that:

H9. Social interaction is positively associated with the esports watching intention

Physical attractiveness in the video gaming context means the appreciation of people, viewing the players involved in the game, and the degree to which the spectator finds the players physically attractive (Hamari & Sjöblom, 2017). Hamari and Sjöblom (2017) mention that one could assume that the players appearance would not be important, because most of the events occurring have nothing to do showing the actual players. However, there are also events happening in front of the camera including the players: the interviews done before and after the matches and all other social media content exposes players for the audience around the clock. Additionally, esports organizations nowadays have personal trainers for their players and the players are training and living professionally even outside of the video games. The stereotypes about unfit and unkempt young men are in the past (Hamari & Sjöblom, 2017). Considering the amount that players are shown on broadcasts in esports compared to traditional sports, this study hypothesizes that:

H10. Physical attractiveness is positively associated with the esports watching intention

The last factor in the model by Trail and James (2001) is the physical skills of the participants. In traditional sports the professional players possess a skill level beyond the average hobbyist and hence many of the sports followers admire their skills and dream about having a similar skill level. Esports makes no difference, because the skills shown during the gameplay by professional players are also the result of practicing countless hours. According to Hamari and Sjöblom (2017) most of the esports spectators also play the same game themselves and therefore also possess the experience to appreciate and admire the skills of the professional esports players.

H11. Player’s skills are positively associated with the esports watching intention

These hypotheses are visualized in Figure 4.

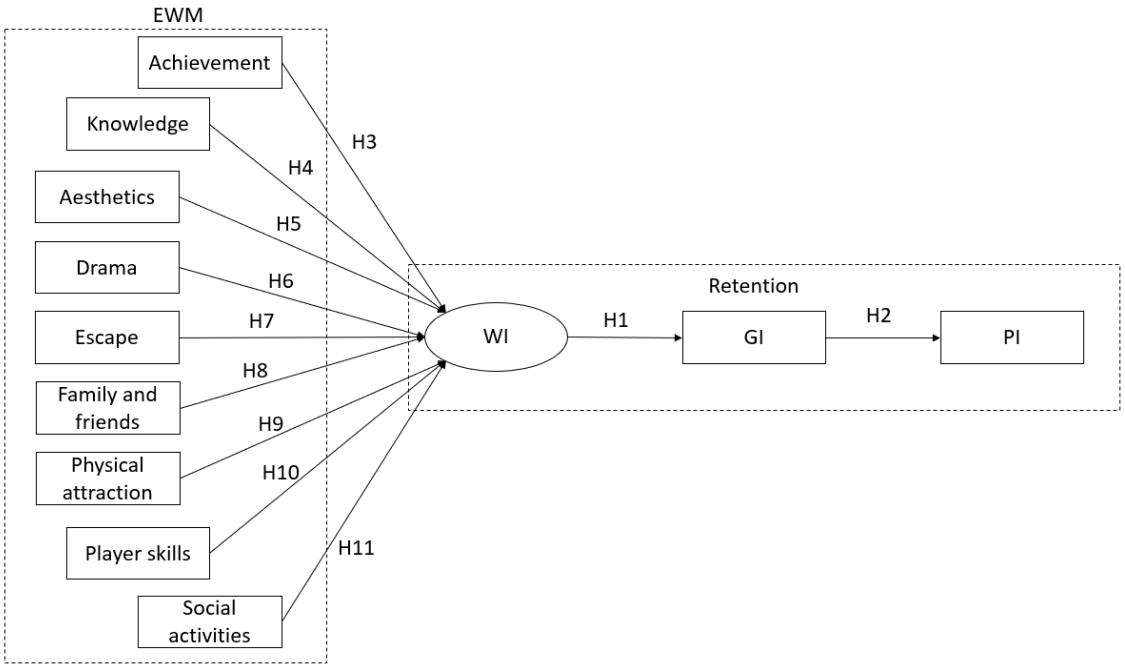

Figure 4. *Research model (EWM, esports watching motivation; WI, watching intention; GI, gaming intention; PI, purchase intention)*

The most crucial hypothesis of the model is the H1, the relationship between the WI and the GI. If there is a scientifically provable existing relationship between the motivation to spectate esports and play video games, it will open new opportunities for the video game companies to improve their esports scene and other out-of-game factors alongside with it. H2 is important for the research as even the study by Hamari et al. (2017) found the relationship between the two, the verification still requires further research for certainty. H3-H11 are to clarify which of the motivational factors for esports consumption have effect on spectators.

6. METHODS AND DATA

6.1 Methodologies

According to Saunders et al. (2009), the research method should flow directly from the research questions and what kind of requirements they limit for research. Choosing the right research method is crucial for successful research and thesis. One of the most well-known tools for choosing the approach and methods is the "research onion" introduced by Saunders et al. (2009), which has all the elements of research as layers in onion shaped model. The research methods used in this thesis are collected and introduced in Figure 5. The philosophies and approaches were adopted from Saunders et al. (2009)

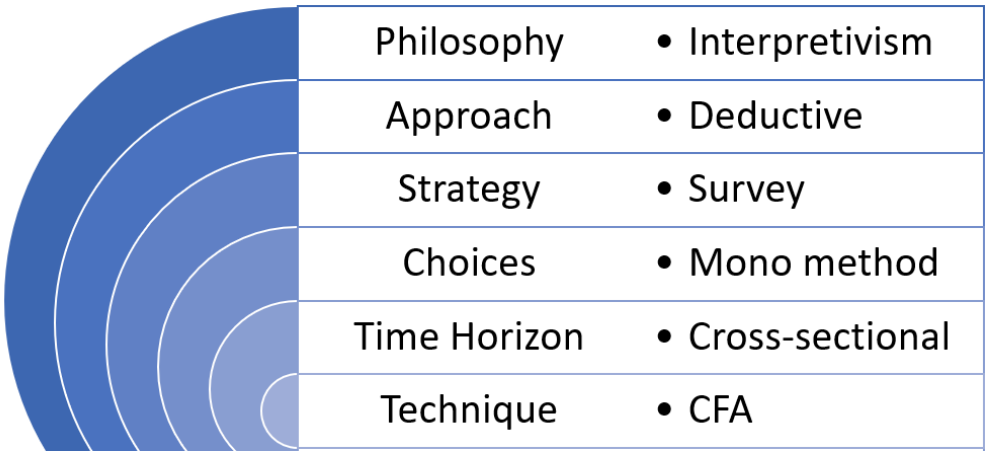

Figure 5. *Chosen research methodologies adapted from Saunders et al (2009)*

Video game players are a unique population. No player is exactly the same, so the grouping of players in an exact manner has turned out to be challenging and led to a situation where they are rather scaled than grouped, like in Yee et al. (2012) video gaming motivation scale. Therefore, "interpretivism, which advocates that it is necessary for the researcher to understand differences between humans in our role as social actors" (Saunders et al., 2009), fits for the philosophy of the thesis. To understand the differences between humans as social actors, the research was based on personal motivations on esports consumption, which form a unique scale for each participant.

The goal of the research was to research the esports consumption motivations and their effect on the intention to watch esports and play video games. The solution was built on a literature review and building the hypotheses based on the findings from the references. According to Saunders et al. (2009), the deductive approach is optimal for explaining causal relationships between variables, which is the exact case in the thesis' research model presented in Figure 5. The deductive research starts with deducing hypothesis about the relationship between two or more constructs (Robson, 2002), which was done

in Chapter 5 according to the reviewed literature. Saunders et al. (2009) mention that an important characteristic of deduction is that the facts can be measured quantitatively, which was observed during the research.

For the successful analysis the thesis required notable amount of data, too low of a sample size would decrease the credibility of the results. “Surveys are popular as they allow the collection of a large amount of data from a sizeable population in a highly economical way” (Saunders et al., 2009). However, the use of a survey also limited the amount of data the researcher was able to collect per person, as a survey cannot have too many questions, or the motivation of the participants to answer decreases. This challenge was handled in two ways. First, the scope of the survey was narrowed in a way that the number of questions in the survey remained suitable. The researcher also considered the form of the questions by limiting the question types to multiple-option questions and 7-point Likert scale questions.

Because of the nature of the research, the survey that was carried out was enough for data collection, especially with the number of answers gathered. Therefore, choosing a mono method approach for the thesis was justified. Single data collection method was able to gather the needed data for the analyzing phase, so there was no need to combine several methods. According to Saunders et al. (2009) the data collection method is supported with corresponding analysis procedure, which in this case was factory analysis utilized by data analysis software. The technique used in this research was confirmatory factory analysis (CFA), which was used to analyze the relationship between question patterns related to motivation constructs and intention to watch esports and play video games.

The goal of this thesis was to present the existing situation within esports and the video games environment, because analyzing long-term changes in the situation would not benefit the topic. In this situation, the cross-sectional study was a natural choice as time horizon, because Saunders et al. (2009) mention that it is concentrated on a particular time, usually present.

6.2 Survey operationalization

Building the survey was started by searching the existing literature for previously approved working question patterns. Eventually the questions used in this thesis were found from other studies, where other researchers with similar research purposes had used the same question constructs, for example, Hamari et al. (2017) and Mäntymäki and Salo (2013).

The survey was built around three main themes: esports spectating motivation, player type and customer retention, including the intention to watch esports, the intention to play a video game, and the intention to use money on a video game.

The main scope of the work is to prove or disapprove the relationship between esports spectating and the intention of playing a video game. There have been multiple researches considering sports fans and their spectating habits, both at the stadium and via broadcast. However only Hamari and Sjöblom (2017) have recently researched watching sports and motivations behind it within the esports context. One thing to notice here is that esports spectating is done mainly via streamed broadcasts in special streaming platforms, e.g. YouTube and Twitch.tv. However, most of the content on these platforms is formed of other than esports streams, e.g. casual players streaming their own gameplay. There are multiple studies relating to why people watch streams or someone playing the video game instead of playing themselves, e.g. Hamilton et al. (2014) and Hilvert-Bruce, Neill, Sjöblom and Hamari (2018). These were also considered in the question planning process for the esports spectating.

The very first questions in the survey were the elimination questions. To be able to participate in the survey, the participant must both watch esports broadcasts and play freemium video games. At the beginning of the survey the participants were asked to fill in their personal, un-identifying information, e.g. age, gender, etc. The basic information has been collected in almost every academic research survey to give the background information, which can be used for visualizing the overall information of the survey participants. This is especially useful for possible future research.

The player types survey segment had a total of 12 questions. The questions were adapted from Yee et al. (2012) Gaming Motivation Scale, which was introduced earlier in Chapter 3. The questions were related to different motivational factors, which were discovered in Yee's earlier research. This scale has been used by other studies, e.g. Debeuvais et al. (2011), and also many writers for the website Gamasutra, would prefer to use this scale over the Bartle's player type model and its modifications (Stewart, 2011), because with the scale one is able to measure how oriented to each factor a player is, because it is possible to be into all three. All the questions are in Appendix 3, and they are divided in following way:

- Questions 1-4: Social motivation
- Questions 5-8: Immersion motivation
- Questions 9-12: Achievement motivation

These questions were implemented directly the way they were from Yee et al. (2012), because they had iterated the question themselves from Yee's 39-item scale, with 10 subcomponents for the original three main components (same as in iterated model). The player type scale was included to survey, because players with different motivation scores tend to have different gaming habits, e.g. players with high achievement score play more than average.

The questions for the esports spectating motivation section were adapted from Trail and James (2001) article The Motivation Scale for Sport Consumption: Assessment of the Scale's Psychometric Properties, which focuses on spectator's motivations to watch traditional sports. This consists of nine motivational factors, which were introduced earlier in Chapter 3.2.1. Hamari and Sjöblom (2017) adapted these factors from the original article for their research, but they excluded some factors, which were most irrelevant for their research purpose; why do people watch esports. The category they excluded was family. This is likely because the esports scene is still mainly popular for young adults and watching takes place in front of a computer or another media machine, which does not really encourage to watch esports with family. Another likely factor is that the current generation of parents are not that familiar with the esports scene, compared to the familiarity level with traditional sports. However, in this thesis this factor was included to survey questions, but family was adopted to fit more as a "family and friends" approach, as according to research, friends playing and watching the same games have great impact on one's intention to play and spend money on video games.

The esports spectating segment in the survey includes a total of 29 questions, which were divided to three questions for each motivational factor in the following order. All the questions used in the survey can be found from Appendix 3.

- Questions 1-3: Achievement
- Questions 4-6: Knowledge
- Questions 7-9: Aesthetics
- Questions 10-12: Drama
- Questions 13-15: Escape
- Questions 16-18: Family and friends
- Questions 19-21: Physical attraction
- Questions 22-24: Player skills
- Questions 25-27: Social activities

All the questions for each factor were modified to be more suitable with the esports environment. For example, in the original research, player skills were related to physical skills, but in video games the skills of professional players are in-game knowledge, mechanics, and reflexes, which cannot be considered as physical skills. Similar modifications were done to most of the questions, where the words related strongly to the traditional sports, and they were replaced with the best corresponding terms from the esports.

The retention segment includes questions related to the intention to watch esports, play the game, and the intention of using money on the service. The questions for the retention part were adopted from Hamari et al. (2017), where they researched the relationship between customer satisfaction in freemium video games and the intention to play the game. The questions were originally adapted from Mäntymäki and Salo's (2013) research on purchasing behavior in virtual worlds. Just like Hamari et al. adapted the questions from

purchase intentions to intention to use, the researcher adapted them to the intention to watch esports. There are total three questions in each part, in the following order, and all questions are in Appendix 3:

- Questions 1-3: Intention to spectate esports
- Questions 4-6: Intention to play video games
- Questions 7-9: Intention to spend money on video games

These question measure, whether the participant's intention to either spectate esports, play video games, or spend money remains at least on the same level than before. One of the key factors of successful customer retention is the continuous usage of the service, in this case the game. Therefore, the intention to retain the identical or increased level of usage, is a valid way of measuring the retention in this questionnaire.

The survey was planned in a way that the answering would take maximum 10 minutes per participant. The amount of questions may seem high, but there are no open-ended questions in this survey. Most of the questions are planned according to the 7-point Likert-scale, which are relatively fast to answer. In some research articles the authors had used a 5-point scale, but many of the reference articles used a 7-point Likert, so the author decided to use the same in this thesis. Rest of the remaining questions were multiple-choice questions, which are also fast to answer.

6.3 Data gathering

The survey received 220 answers and 26 respondents were removed from data, because they did not meet the predetermined criteria of both watching esports and playing freemium video games. The final version was opened for participants in 1st of October and was open till 5th of November. The survey link was shared in writer's own social media (Facebook, Twitter) and on couple video game forums. General information of the survey is presented in Table 3, which has all the characteristics of the respondents.

Table 3. *Sample characteristics*

Variable	Category	Frequency
Gender	Female	14 (7%)
	Male	177 (91%)
	Prefer not to say	2 (1%)
	Other	1 (1%)
Age	15-19	16 (8%)
	20-24	69 (36%)
	25-29	66 (34%)
	30-34	30 (15%)

	35-39	11 (6%)
	40+	2 (1%)
Employment	Full time	80 (41%)
	Part time	15 (8%)
	Student	92 (47%)
	Unemployed	3 (2%)
	Other	4 (2%)
Education	No education	3 (2%)
	Basic education	6 (3%)
	Secondary education	72 (37%)
	Higher education	113 (58%)
Income	< 9 999 €	62 (32%)
	10 000 € - 19 999 €	35 (18%)
	20 000 € - 29 999 €	14 (7%)
	30 000 € - 39 999 €	24 (12%)
	40 000 € - 49 999 €	23 (12%)
	50 000 € -	36 (19%)

There are a few key things to notice from the sample and which categories it mostly represents. Over 90% of the answers in the survey were from people identifying themselves as male, even though nowadays, for example in US, women form 45% of the total gamer population (ESA, 2018). Therefore, the genders are represented in the sample somewhat unequally, which is most likely caused by the social relationships of the author. Another key thing to notice is that even though people identifying as female are gaming actively, the majority of the "hardcore" gamers, who are likely to be interested in esports, are still male. Also, this is likely to reflect the readership of the channels the researcher used for gathering the participants to the survey. Besides the gender, it is noticeable that only 1% of the respondents were over 40 years old. This is also explained most likely with the readership. Even with the surprisingly low average age for the respondents, almost half reported to be full time working, while the margin of students remained at 47%. The household income for the survey was logically in line with the number of students as exactly 50% reported to have 19 999 euros or lower income per year.

7. DESCRIPTIVE RESULTS

The participants were asked about their general gaming habits, related to the hours and money spent on video game content. The goal behind the questions was to gather data for identifying if the participants present the normal distribution of specific player groups. The respondents were also questioned on their video gaming motivations with the video gaming motivation scale to acquire a general view of the sample's motivations towards gaming.

The gaming hours per week were divided evenly between different segments on the 7-option scale, where each item was a five-hour time frame. The most common answers were the options in the middle of scale as 56 percent of the participants play video games 6-20 hours per week. As mentioned in the Chapter 2.4, the most active players are called "hardcore" gamers, who are generally seen as people who play more than 20 hours per week, who represented 16 percent of the participants in the survey. This is a realistic result considering that most of the video game players are "casual" and their activity is measured on a weekly basis instead of a daily basis. Also, only 2 percent of the survey participants played on average 0 hours per week meaning they play very rarely or alternatively have long breaks between the gaming sessions, which lowers the average down close to zero. The different groups are presented in Figure 6.

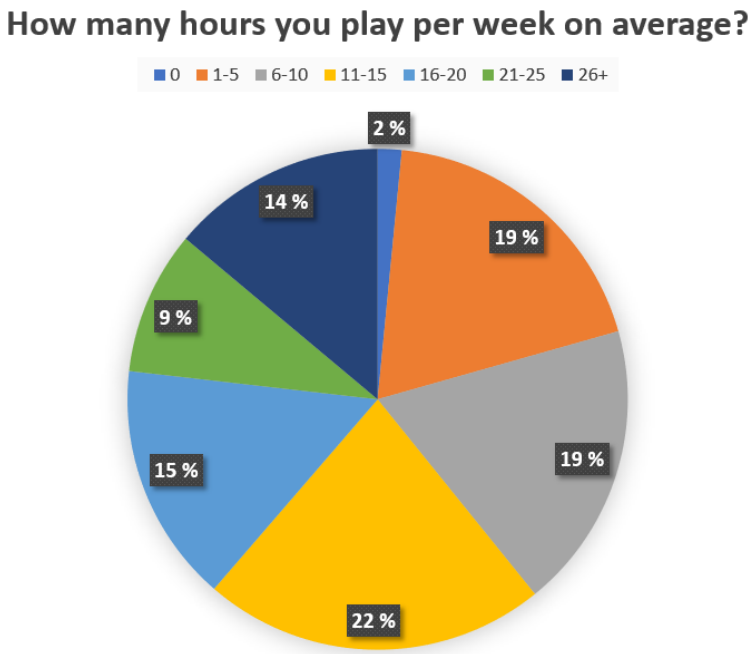

Figure 6. *Average gaming hours per week for participants.*

According to the survey results, the gamers do not watch esports as much as they play the games themselves. Over half of the participants, 63 percent, reported that they are watching esports 0-5 hours on average per week. For comparison, the three middle options in spectating received 24 percent of the answers, which is less than half compared to video game playing hours from the same options. Surprisingly, 13 percent of the participants reported to watch esports broadcasts over 26 hours on average per week. The number is noticeably greater than the corresponding number in Figure 7 (13 % vs. 2%).

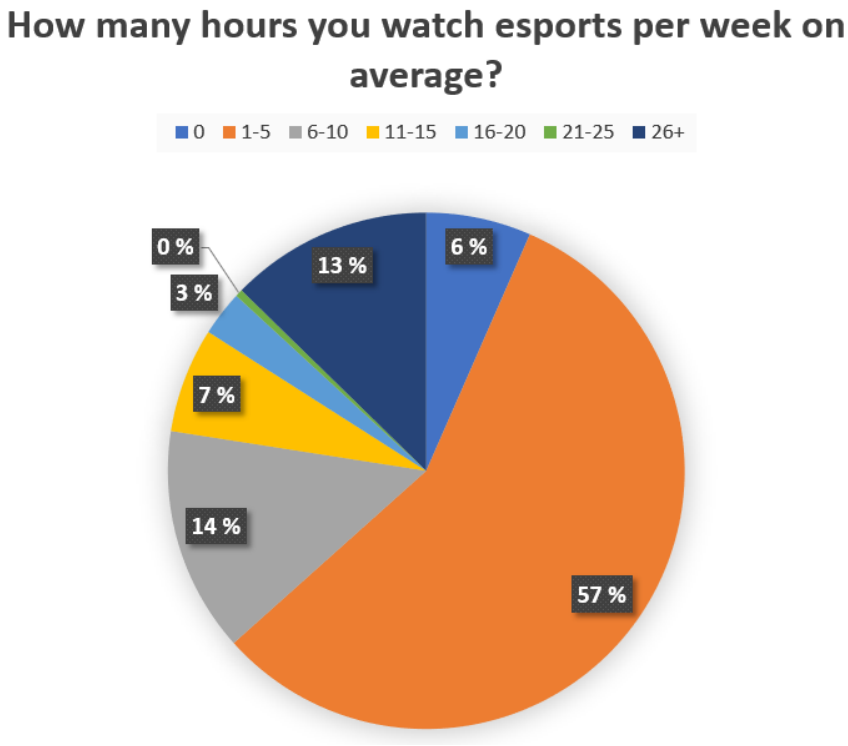

Figure 7. *Average esports spectating hours per week on average for participants.*

According to the survey results, most of the players were both playing and watching the same video games (89%), while the remainder watched different esports games than they played, see Figure 8. The survey result does not mean that most respondents only play games, which they also watch. The goal was to find out, whether players are playing at least one video game that they also follow in the esports scene.

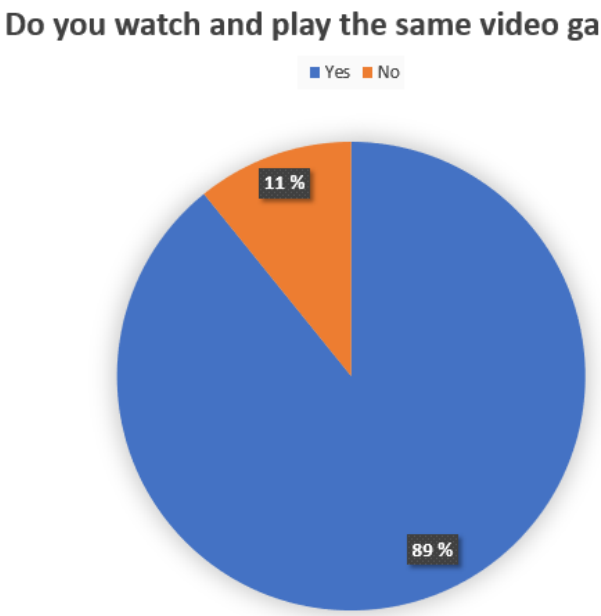

Figure 8. *Players both playing and watching same video game(s)*

The participants answered to the question on how much money they spend on average to freemium games. Half of the respondents stated that they do not use money at all on freemium video games, see Figure 9 for visual presentation of segments. The highest 13 per cent of the respondents are using over 11 euros per month on average to freemium games. The share is exactly the same as the number of players watching the maximum option, 26 hours or more, of esports broadcasts.

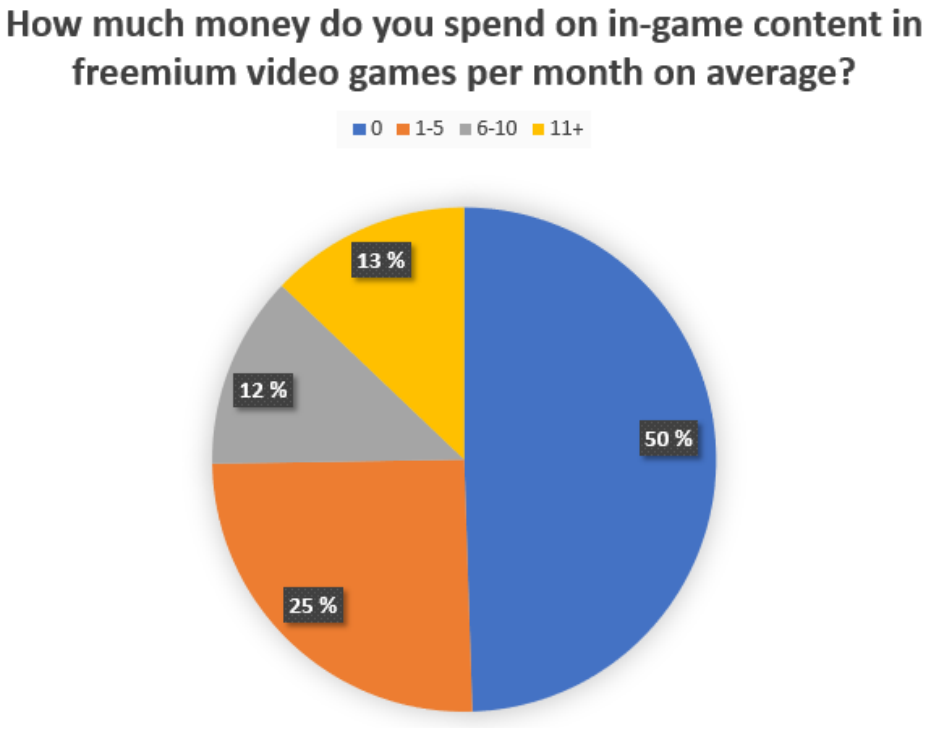

Figure 9. *Average amount of money used on freemium games per month for participants.*

As one segment of the survey the respondents answered to questions related to gaming motivation scale developed by Yee et al. (2012). Table 4 demonstrates the results of each gaming motivation segment in survey.

Table 4. *Player type values from survey*

Question	Average	Average for segment	Median	(Strongly) agree
Social 1	5,23	5,36	6	44
Social 2	4,64		5	
Social 3	5,39		6	
Social 4	6,17		7	
Achievement 1	4,63	4,51	5	16
Achievement 2	5,04		5	
Achievement 3	4,83		5	
Achievement 4	3,54		3	
Immersion 1	5,42	5,40	6	41
Immersion 2	5,18		5,5	
Immersion 3	5,27		6	
Immersion 4	5,74		6	

The survey results show that within the sample of respondents the Achievement segment was the least important with the total average of 4,51 and Achievement4 question averaging the lowest score overall, 3,54. Also out of 194 participants only 16 respondents answered “Agree” or “Strongly agree” to all Achievement questions. This is drastically lower compared to the numbers with other segments, Social 44 and Immersion 41. Only 16 people out of all respondents answered “Agree” or “Strongly agree” to both Social and Immersion questions and only one out of all participants answered “Agree” or “Strongly agree” to all the questions.

8. DATA ANALYSIS AND RESULTS

The research model introduced in Figure 4 was tested and validated with proper methods by using data analysis software: SPSS and AMOS. First, the model was tested by conducting exploratory factor analysis. According to literature the Kaiser-Meyer-Olkin measure of sampling adequacy should be greater than 0.60 (Hair, Black, Babin, & Anderson, 2010). With the researched data the result was 0.749, which is greater than the threshold value. The loading values for different items for their corresponding constructs were mainly greater than the threshold value of 0.700 suggested by Chin (1998). Total 30 out of 36 items surpassed this. Two factors were removed from the model, because their loadings were less than 0.400, which is considered as acceptable limit in prior research (Gefen, Straub, & Boudreau, 2000), see Appendix 1 for more information. Further analyzing the composite reliability of each construct: all of them exceeded the threshold value of 0.700, as suggested by (Fornell & Larcker, 1981). Half of the constructs had even greater result of over 0.800 or higher, which gives even greater validity for the results.

After the modifications and final factory loadings, the model's validity and reliability were tested with AMOS (data analysis software) by analyzing the Composite Reliability (CR), Average Variance Extracted (AVE) and the square root of AVE. The suggested limit values for CR is 0,700 and for AVE 0,500, which all the constructs exceeded. The following columns for the measure are for the square root of AVE, to compare that it is equal or greater than to its correlation with other constructs in the model. The more detailed information about these values is presented in Appendix 2.

Last phase for the evaluation of the data validity was declaring the model's fit for the research. The critical factors for declaring this are represented in Appendix 2. CMIN and df are required to calculate the value of CMIN/df, whose value should not be higher than three (see Table 5 for exact values). As we can see the value is remarkably below the threshold, so the values are justified for the research. According to literature CFI and TLI should be higher than 0.90 and in some cases, e.g. small sample size, values over 0.85 are still acceptable. Standardized Root Mean Square Residual (SRMR) value is supposed to be less than 0.080, which is also true in this case according to the data. Therefore, we can declare that based on the information presented in Table 5 and Appendix 2, the research reliability is on acceptable level.

Table 5. *Model fit values adapted from AMOS*

Variable	CMIN	df	CMIN/df	RMSEA	CFI	TLI	SRMR
Value	571,597	417	1,371	0,047	0,939	0,927	0,0704

The goal of the thesis was to research relationship between motivational factors of spectating esports (EWM), one's intention to watch esports (WI) and one's intention to play freemium video games (GI), which usually leads into purchasing intention (PI). The results of the research carried out by CFA are demonstrated in Figure 10. The results are presented with standardized effects and their statistical significance.

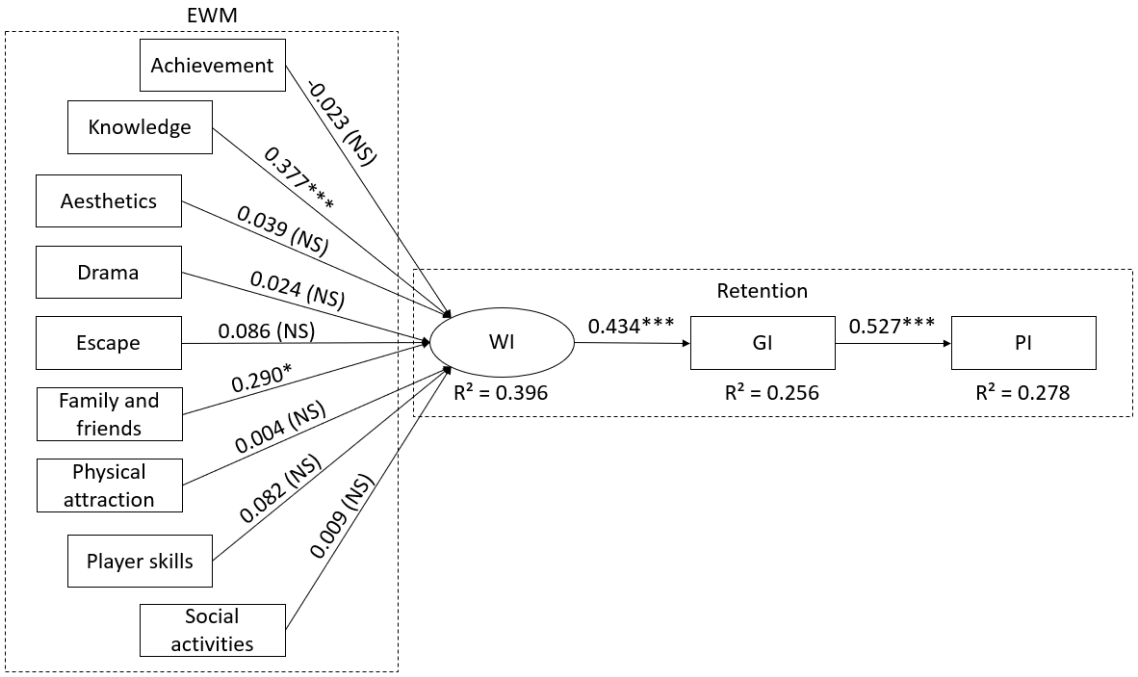

Figure 10. *Model results*

The findings show that even though most of the hypotheses expected relationship between single motivation and watching intention, there are only four factors out of 11 (H1, H2, H4 and H8), which have statistically significant relationship. Other effects are outside of the so-called star-threshold (*-***) scale. This means in practice that only these two factors can be claimed to have effect on esports spectating with high enough statistical significance.

The results of the survey differ from the hypothesis. The fact that only four hypotheses were proven to have both a high enough standardized effect and a statistical significance was surprising, when reflected to earlier research and literature. However, the earlier research by Hamari and Sjöblom (2017) focused on watching frequency instead of intention, so the results cannot be reflected directly. Even though esports are called sports, according to survey results, it might be true that the traditional sports consumption motivations do not exist for the "new age of sports" and spectators actually have different motivational reasons compared to traditional sports. The summary of the results is presented in Table 6.

Table 6. *Summary of results*

Hypothesis	**Path coefficients**	
H1: ACH + WI	Not significant	Not supported
H2: KNO + WI	0.377***	Supported
H3: AES +- WI	Not significant	Not supported
H4: DRA + WI	Not significant	Not supported
H5: ESC + WI	Not significant	Not supported
H6: FaF + WI	0.290*	Supported
H7: PHY +- WI	Not significant	Not supported
H8: PS + WI	Not significant	Not supported
H9: SOC + WI	Not significant	Not supported
H10: WI + GI	0.434***	Supported
H11: GI + PI	0.527***	Supported

* $p < 0.010$.
*** $p < 0.001$.

The result for the research is that there is strong relationship between Watching Intention and Gaming Intention, the both constructs have greater than 25 percent proportion of variance explained with WI covering almost 40 percent. According to the analysis there is also strong affection between Gaming Intention and Purchase Intention with over 0,50 path coefficients and over 25 percent proportion of variance explained. These statistics justify very strong significance for both Hypothesis 1 and Hypothesis 2.

9. DISCUSSION

The findings of this study can provide the academic community with new data about the game environment. The gaming industry is going through a new era of customer retention and attraction, which has now a greater impact than ever before on the companies in the industry. Being able to prove unknown information, which connects new and old players to the intention to play video games and therefore improving the connection to continuous usage, is crucial information for all the companies within the industry.

9.1 Theoretical contributions

The first contribution of the research was first theorizing and then, with the gathered data, validating research model for the motivations behind the esports spectating. Afterwards the study validated the relationship between motivations and intention to spectate esports and also the relationship between intention to spectate esports and intention to play the video games. The prior research had mainly focused on esports consumption motivations and their effect with esports watching frequency (Hamari & Sjöblom, 2017). Besides the article of Hamari et al. (2017) most of the esports related research had focused on determining if esports is sports or not, and why people want to become professional players (Hallmann & Giel, 2017). However, the interest towards studying the influence of esports towards video gaming has been lacking.

Because all the esports scenes are making no profit so far and companies are still willing to continue supporting the scene, it is obvious that esports must have great significance to the revenue streams of video games. The research proved with the great standardized effect and statistical significance that there is likely a connection between the intention to watch esports and the intention to play the video games. Even without the CFA the medians for intentions were impressive and, for example, 89 percent of the respondents answered that they are both watching esports broadcasts and playing the same video games.

The second contribution of this thesis is explaining that at least two motivational factors are likely to have a relationship with the intention to watch esports. Knowledge construct included following the statistics for the specific players and teams. As one could expect, if the player is willing to use extra resources for gathering the information related to a game, it is likely that the player also has a strong intention to watch the games. So, the hypothesis for this construct was correct. The Family and Friends (FaF) construct was one of the constructs that was forced to exclude one question, because the question had a loading value, which differed from two other questions for the construct. Yet, the relationship between FaF and GI were significant enough to be claimed as supported. Beyond

the few supported hypotheses, the remaining surprising results create a need for more elaboration and discussion.

The achievement construct was expected to have great positive effect on GI, but both effects and significance were far from significant. The questions were closely related to co-living with the team, and as it was mentioned in Chapter 3.2.2, one of the major differences between traditional sports and esports is that the teams are lacking their own stadiums and most of the content is produced online. One could claim that without the geographical link and historical reasons to root for own team, majority of the spectators do not form strong enough relationship towards any esports team, or at least forming the bond is more difficult. However, the situation can change in the future, e.g. some teams will be greatly identified with certain country or other location.

The aesthetics constructs had also close to no effect at all in the results of the model, the statistical significance was too high to include the minor positive effect as supported result. The reason behind this result may turn out to be complex. Video games in general, especially the ones with the esports scene, tend to have multi-dimensional aspects and they require immense amount of concentration to be followed comprehensively. Therefore, for some part of the spectators it is not possible to enjoy the aesthetics side of the game, while trying to follow the game itself. The inherent beauty of the video game might also be complicated to determine, because there is no exact determination, what is one performance in video games, unlike in traditional sports. Dividing the performance in smaller parts could help for the situation, but is not likely to happen, because of the nature of esports.

Drama turned out to be another non-significant construct for the watching intention. This is also contrary to the situation within traditional sports, where drama is one of the biggest factors to watch the game (G. T. Trail & James, 2001). However, even though the hypothesis was not supported, results was also expected as Hamari and Sjöblom (2017) had close to same values for drama importance for esports watching frequency. Also, earlier research has stated that a dramatic turn of events during the stream increases viewership (Karhulahti, 2016). Besides, even though all the games include drama for the players with in-game mechanics, e.g. fog of war, which means that players have limited detection of the game area, which they have to increase by, for example, scouting (Cheung & Huang, 2011) or warding (Dota 2, 2018). Scaling the result with the results how players tend to enjoy drama, it is very surprising. It could be said that the problem is not the construct, but the elements related to it. Maybe this thesis or the previous research have not been able to form a model, which asks for right elements of drama, e.g. the drama of the final fights in the video game had very low standardized CFA loadings and had to be excluded from the results. Another point of view is that the level of drama also affects the experience of players. Again, because of the nature of how esports works, single surprising moments, drama, happen during a single match multiple times. The amount is way greater

compared to how often for example similar great surprises happen in football. The problem might be that the effect of a single dramatic moment in esports is lower compared to sports, but this does not mean the players do not enjoy the drama overall.

Another factor that has been proven to be very important from the player's point of view is social interaction within the video game context (Cheung & Huang, 2011; Georgieva, Arnab, Romero, & Freitas, 2015; Hamilton et al., 2014; Sjöblom & Hamari, 2017). Similarly, with sociality as it was with drama, the results of the research model are on the contrary of the hypothesis. It is noticeable that all the esports ecosystems and their channels have social aspects, so the possibility for the social interaction exists for all the spectators and huge number of them engage in it. However, it can be argued that instead of social interaction leading to intention to watch esports, the situation might be contrary. Maybe watching esports encourages people to participate for the social side of esports. After all most of the discussion related to esports games is done on different social platforms, where users share replays and clips of the past games and comment on performances of single players. Participating in this kind of activities has a greater entry barrier, if one has not watched the esports before. Also, yet again, the fact that esports content takes place mostly online over internet connection, probably affects to some extent that there is no similar level of need to be social as it would be physically at sports stadium. Watching content online leaves open the option to just focus on the content without any additional activities. Unlike in video games, one is not forced so actively to social interaction, e.g. in video games the mechanics encourage you to be social with other players, esports do not have, as of yet, similar mechanics.

The relationship between both WI/GI and GI/PI were the strongest according to data analysis. The latter was no surprise as the relationship between intention to use the service and pay for it has already be proven by prior research (Hamari et al., 2017). The greatest contribution of the research is proving the likely relationship between Watching Intention and Gaming Intention as this information is very beneficial for the video game companies working with the esports scene. In traditional sports many of the fans only watch the sport, but with video games over 89 percent of respondents both watch and play. One could argue that esports is one of the most important entry channels for the actual video game as the game play footage is popular way for attracting new users, and competitive wise, there is no better footage than game showing the best players playing the game. This is especially the case with freemium video games, as their success depends on attracting a vast number of players, so the retained players form a big enough population for the company to be profitable.

9.2 Practical contributions

This study further increases the findings with the latest research of motivations behind esports spectating. Actors working in the esports scene might have to acknowledge that the esports field cannot be developed with the same patterns as traditional sports, e.g.

building local stadiums for esports teams might turn out to be a bad decision, because the motivations for video gamers are likely to differ from what the traditional scales suggest. This provides an opportunity to develop new models or approaches to determine the actual reasons behind watching esports.

The only strong effect with knowledge and intention to watch is something actors should also consider. In practice this means developing channels, where fans can gather information related to the games and players. This aspect of the scene has developed greatly during the past years, e.g. HLTV.org provides immense amount of data related to CS:GO scene and most of the esports broadcasts have a separate analyst desk, which provides with ease the numbers and statistics of the games for spectators. Knowledge acquisition is a continuous process as one's development never stops. By providing and continuously developing the tools for players, companies within the esports industry are improving their chances for a successful retention process.

The retention process has been seen as continuous usage of the game and willingness to use money for the video game (Robinson, 2014, 2017). However, with the findings from research it is possible that there are unutilized out-of-game factors, like the esports scene, which further increase the possibility of successful customer retention. The video game companies have been able to use in-game data for decades for improving the retention of players. However, in future the improvement is likely to happen with factors, which are not as optimized as the in-game factors. The existing relationship between esports spectating and intention to play a video game provides the video game industry with possibility to analyze even more out-of-game factors and their importance of being first step in player retention process.

The results also revealed that friends form to some extend an important factor for spectating esports as they provide the great share of the social experience for spectator. In practice this means for the actors that spectators need more tools to share and search for the videos of the past games and highlights, so the conversation between friends exists also in-between the games. Friends have been proven to be a great factor with intention to continue playing the video game and so might be the case with esports spectating also.

9.3 Limitations and future research

There are some limitations to be considered with the carried-out methodology in this thesis. Generally, studies using the online surveys as data gathering method, have two commonplace limitations: the data is self-reported, and the participants are self-selected. The self-reported data is very dependent on the fact that users are actively engaged in with the service, in this case esports and willing to participate in actions related to it, in this case the master's thesis survey. Without a high enough engagement, the data quality may suffer in two ways. First, the user might not focus for the whole duration of the survey, which leads to lower data quality. Second, user might just spam the answers, e.g. the respondent

answers “Strongly Agree” to all the questions, which equally lowers the data quality. This problem can be solved by disregarding the low-quality answers from the sample, but with great sample size it requires more resources. As a suggestion to eliminate the possible problems of the online survey, the author suggests that instead of a mono-method study, future research should utilize a combined-methods approach. The findings of the survey would have been noticeably easier to justify, if the researcher had access to popular esports games in-game user data to verify some of the questions related to this thesis’ scope. This would have probably also improved the quality of the questions in the survey, which would have decreased the number of excluded questions from the results. Lastly, almost all the respondents were very likely from Finland, because of the social channels the survey link was shared. For example, in Asia the motivations behind spectating esports may differ to some extent compared to Finns and Europeans overall. This is an important factor to consider as Asia is already the biggest market area for video games.

The used methods include other limitation also, SMCS, even the scale has been proved to work well within scope of traditional sports. This was another study, which had the same end results that most of the factors had statistical significance close to none. This raises the possibility that there is likely to be something in the norms of esports that influence the consumption motivations, making them totally different compared to traditional sports. So, in practice, this could mean that the motivational scale used does not include the whole motivational spectrum of esports. Because of the complex nature of esports and multifaceted phenomenon, it is likely that within esports context the motivations are more complicated than traditional simple constructs. The situation could be compared to Yee et al. (2012) player profiles, which introduced three different elements, which players profile engage differing amount, depending how close the single element is for the player. This creates unique player profiles, which combines the elements on scale compared to other players. Similarly, it is possible that due to player’s “motivation profile” the reasons behind spectating esports may differ greatly and be connected in more complex way than prior research expects.

The possible future research related to relationship between esports spectating and playing video games, could benefit more from the player profiles instead of the motivational reasons behind the spectating. Player profiles have been proven to effect the player’s in-game behavior, so it is likely that there is also an existing effect on esports consumption based on which factor the player is associated most closely to (immersion, achievement or social) element. Profile research could be able to explain the weak effects and statistical significances for most of the motivational factors. Like the results state, the relationship between social interaction and intention to watch was close to none, even though the existing research stated otherwise and the importance of social aspects, e.g. communities, were introduced in theory. Other point of view for esports spectating could be to study, which factors increase the gratification of esports spectating experience. For example, with social interaction, it might be that there is no motivational reason to watch the actual

games, but it may increase the experience quality overall if one can have conversation about the game and events instead of spectating them alone. With the current state of the research, the field still requires own valid model for measuring the motivations and reasons behind watching the esports. Relationship between the watching intention and gaming intention was likely proven within this research, but there are still open questions of what the greatest factors are for increasing the gaming intention, when watching esports, because motivational constructs used were not able to provide answer.

REFERENCES

Anderson, C. (2010). *Free: The Future of Radical Price*. Random House, London.

Appelbaum, L. G., Cain, M. S., Darling, E. F., Stanton, S. J., Nguyen, M. T., & Mitroff, S. R. (2012). What is the identity of a sports spectator? *Personality and Individual Differences*, *52*, 422–427. https://doi.org/10.1016/j.paid.2011.10.048

Arakji, R., & Lang, K. (2007). Digital Consumer Networks and Producer-Consumer Collaboration: Innovation and Product Development in the Video Game Industry. *Journal of Management Information Systems*, *24*(2), 195–219. https://doi.org/10.2753/MIS0742-1222240208

Bartle, R. (1999). Hearts, clubs, diamonds, spades: Players who suit MUDs. *Journal of MUD Research*, *1*(1), 19. https://doi.org/10.1007/s00256-004-0875-6

Bateman, C., Lowenhaupt, R., & Nacke, L. E. (2011). *Player Typology in Theory and Practice*. Retrieved from http://onlyagame.typepad.com/Player Typology.digra2011.pdf

Bernhardt, P. C., Dabbs, J. M., Fielden, J. A., Lutter, C. D., Bernhardt, P. C., Dabbs, J. M., … Lutter, C. D. (1998). *Testosterone Changes During Vicarious Experiences of Winning and Losing Among Fans at Sporting Events Testosterone Self-esteem Sports Spectators Fans BIRG*. Retrieved from https://ac.els-cdn.com/S0031938498001474/1-s2.0-S0031938498001474-main.pdf?_tid=7ce1b9c6-dc9f-4653-a3ee-f5334c2cd6fe&acdnat=1539456521_2f2a0945f0aba3d1bddb46dcd340be1f

Bhattacherjee, A. (2001). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *MIS Quarterly*, *25*(3), 351. https://doi.org/10.2307/3250921

Blizzard. (2018). World of Warcraft. Retrieved November 14, 2018, from https://worldofwarcraft.com/en-us/

Burger-Helmchen, T., & Cohendet, P. (2011). User communities and social software in the video game industry. *Long Range Planning*, *44*(5–6), 317–343. https://doi.org/10.1016/j.lrp.2011.09.003

Carter, M., & Gibbs, M. R. (2013). eSports in EVE Online: Skullduggery, fair play and acceptability in an unbounded competition. *Fdg*, 47–54. Retrieved from http://marcuscarter.com/wp-content/uploads/2013/03/eSports-in-EVE-Online-referenced.pdf

Cheung, G., & Huang, J. (2011). *Starcraft from the Stands: Understanding the Game Spectator*. Retrieved from http://delivery.acm.org/10.1145/1980000/1979053/p763-cheung.pdf?ip=130.230.31.178&id=1979053&acc=ACTIVE SERVICE&key=74A0E95D84AAE420.8CAACA10A81E6DB1.4D4702B0C3E38B35.4D4702B0C3E38B35&__acm__=1539361648_739417468f23136118f45adc

141a271c

Chin, W. W. (1998). Issues and opinion on structural equation modeling. MIS Quarterly, MIS Quarterly & The Society for Information Management, 1–1.

Debeuvais, T., Shapiro, D. J., Nardi, B., Ducheneaut, N., & Yee, N. (2011). If You Build It They Might Stay: Retention Mechanisms in World of Warcraft. *6th International Conference on the Foundations of Digital Games (FDG 2011)*, 1–8. https://doi.org/10.1145/2159365.2159390

E-SportsEarnings. (2018). Esports earnings 2018. Retrieved November 14, 2018, from https://www.esportsearnings.com/history

ESA. (2018). *2018 Essential Facts About The Computer And Video Game Industry*. Retrieved from http://www.theesa.com/wp-content/uploads/2018/05/EF2018_FINAL.pdf

ESPN. (2018). Overwatch League aims to get teams to their home cities by 2020.

Evans, E. (2016). The economics of free: Freemium games, branding and the impatience economy. *Convergence*, *22*(6), 563–580. https://doi.org/10.1177/1354856514567052

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39–50.

Fu, X., Chen, X., Shi, Y. T., Bose, I., & Cai, S. (2017). User segmentation for retention management in online social games. *Decision Support Systems*, *101*, 51–68. https://doi.org/10.1016/j.dss.2017.05.015

Gefen, D., Straub, D., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, *4*(1), 1–7.

Georgieva, G., Arnab, S., Romero, M., & Freitas, S. de. (2015). Transposing freemium business model from casual games to serious games. *Entertainment Computing*, *9–10*, 29–41. https://doi.org/10.1016/j.entcom.2015.07.003

Gidhagen, M., Ridell, O. P., & Sörhammar, D. (2011). The orchestrating firm: Value creation in the video game industry. *Managing Service Quality*, *21*(4), 392–409. https://doi.org/10.1108/09604521111146261

Giulianotti, R. (2002). Supporters, Followers, Fans, And Flaneurs:A Taxonomy of Spectator Identties in Football. *Journal of Sport and Social Issues*, *26*(1), 25–46. Retrieved from http://journals.sagepub.com/doi/pdf/10.1177/0193723502261003

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River (N.J.): Prentice Hall.

Hallmann, K., & Giel, T. (2017). ESports - Competitive sports or recreational activity? *Sport Management Review*, *21*(1), 14–20. https://doi.org/10.1016/j.smr.2017.07.011

Hamari, J. (2015). Why do people buy virtual goods? Attitude toward virtual good purchases versus game enjoyment. *International Journal of Information Management*, *35*(3), 299–308. https://doi.org/10.1016/j.ijinfomgt.2015.01.007

Hamari, J., Hanner, N., & Koivisto, J. (2017). Service quality explains why people use freemium services but not if they go premium: An empirical study in free-to-play games. *International Journal of Information Management*, *37*(1), 1449–1459. https://doi.org/10.1016/j.ijinfomgt.2016.09.004

Hamari, J., & Sjöblom, M. (2017). *What is eSports and why do people watch it? Internet Research* (Vol. 27). Retrieved from www.emeraldinsight.com

Hamari, J., & Tuunanen, J. (2014). Player Types : A Meta-synthesis. *TamPub*. https://doi.org/10.1111/j.1083-6101.2006.00301.x

Hamilton, W. A., Garretson, O., & Kerne, A. (2014). Streaming on Twitch: Fostering Participatory Communities of Play within Live Mixed Media, 1315–1324.

Hau, Y. S., & Kim, Y. G. (2011). Why would online gamers share their innovation-conducive knowledge in the online game user community? Integrating individual motivations and social capital perspectives. *Computers in Human Behavior*, *27*(2), 956–970. https://doi.org/10.1016/j.chb.2010.11.022

Hawley, N. (2016). Key Trends in the Games Industry That Will Define 2016 The Distinction between Social Media and Games Will Continue to Blur, (July), 1–4.

Hilvert-Bruce, Z., Neill, J. T., Sjöblom, M., & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, *84*, 58–67. https://doi.org/https://doi.org/10.1016/j.chb.2018.02.013

Ho, S.-H., & Huang, C.-H. (2009). Exploring success factors of video game communities in hierarchical linear modeling: The perspectives of members and leaders. https://doi.org/10.1016/j.chb.2009.02.004

Holm, A. B., & Günzel-Jensen, F. (2017). Succeeding with freemium: strategies for implementation. *Journal of Business Strategy*, *38*(2), 16–24. https://doi.org/10.1108/JBS-09-2016-0096

Hsiao, K. L., & Chen, C. C. (2016). What drives in-app purchase intention for mobile games? An examination of perceived values and loyalty. *Electronic Commerce Research and Applications*, *16*, 18–29. https://doi.org/10.1016/j.elerap.2016.01.001

Hsu, C.-L., & Lu, H.-P. (2005). Consumer behavior in online game communities: A motivational factor perspective. https://doi.org/10.1016/j.chb.2005.09.001

Hutchins, B. (2008). Signs of meta-change in second modernity: The growth of e-sport and the World Cyber Games. *New Media and Society*, *10*(6), 851–869. https://doi.org/10.1177/1461444808096248

Jacobs, G., & Ip, B. (2005). Segmentation of the games. *Journal of Targeting, Measurement & Analysis for Marketing*, *13*(3), 275–287.

Joo, Y. G., & Sohn, S. Y. (2008). Structural equation model for effective CRM of digital content industry. *Expert Systems with Applications*, *34*(1), 63–71. https://doi.org/10.1016/j.eswa.2006.08.016

Karhulahti, V.-M. (2016). *Prank, Troll, Gross and Gore: Performance Issues in Esport Live-Streaming*.

Kerr, A. (2006). *The business of making digital games* (1st ed.). SAGE Publications Ltd.

Kim, Y., & Ross, S. D. (2006). An exploration of motives in sport video gaming. *International Journal of Sports Marketing and Sponsorship*, *8*(1), 28–40. https://doi.org/10.1108/IJSMS-08-01-2006-B006

Kimppa, K. K., Heimo, O. I., & Harviainen, J. T. (2016). First dose is always freemium. *ACM SIGCAS Computers and Society*, *45*(3), 132–137. https://doi.org/10.1145/2874239.2874258

Kotler, P. (2000). *Marketing management: Analysis, planning, implementation, and control* (10th ed.). Prentice-Hall, Englewood Cliffs, NJ.

Kumar, V. (2014). Making "freemium" work. *Harvard Business Review*, (MAY 2014), 27–30.

Lin, H.-F. (2006). Understanding Behavioral Intention to Participate in Virtual Communities. *CyberPsychology & Behavior*, *9*(5), 540–547. https://doi.org/10.1089/cpb.2006.9.540

Lu, B., Fan, W., & Zhou, M. (2016). Social presence, trust, and social commerce purchase intention: An empirical research. *Computers in Human Behavior*, *56*, 225–237. https://doi.org/10.1016/j.chb.2015.11.057

Mäntymäki, M., & Salo, J. (2013). Purchasing behavior in social virtual worlds: An examination of Habbo Hotel. *International Journal of Information Management*, (33), 282–290. Retrieved from https://ac.els-cdn.com/S0268401212001715/1-s2.0-S0268401212001715-main.pdf?_tid=dd9ebb51-592d-4eed-97c3-8bed4886ccfb&acdnat=1537881709_b1c7e140e475eeb54667e34758111f2e

Marchand, A., & Hennig-Thurau, T. (2013). Value creation in the video game industry: Industry economics, consumer benefits, and research opportunities. *Journal of Interactive Marketing*, *27*(3), 141–157. https://doi.org/10.1016/j.intmar.2013.05.001

Martončik, M. (2015). e-Sports: Playing just for fun or playing to satisfy life goals? https://doi.org/10.1016/j.chb.2015.01.056

McGrath, R. G. (2010). Business models: A discovery driven approach. *Long Range Planning*, *43*(2–3), 247–261. https://doi.org/10.1016/j.lrp.2009.07.005

Melnick, M. J., & Wann, D. L. (2010). An examination of sport fandom in Australia: Socialization, team identification, and fan behavior. *International Review for the Sociology of Sport*, *46*(4), 456–470. https://doi.org/10.1177/1012690210380582

Milne, G. R., & McDonald, M. A. (1999). *Sport marketing: Managing the exchange process*. Jones & Bartlett Learning.

Niculescu, M., & Wu, D. (2010). When should software firms commercialize new products via freemium business models? *Wise*, 1–46. https://doi.org/10.2139/ssrn.1853603

Oxford Reference. (2018). Retrieved October 9, 2018, from saatavissa: http://www.oxfordreference.com/view/10.1093/acref/9780198736424.001.0001/acref-9780198736424-e-0491

Peterson, E. M., & Raney, A. A. (2008). Reconceptualizing and reexamining suspense as a predictor of mediated sports enjoyment. *Journal of Broadcasting and Electronic Media*, *52*(4), 544–562. https://doi.org/10.1080/08838150802437263

Reicheld, F. F. (1996). The loyalty effect: The hidden force behind growth, profits, and lasting value. *Harvard Business School Press*.

Reime, V. (2011). *Exploring the Freemium Business Model*. Retrieved from https://www.duo.uio.no/bitstream/handle/10852/12882/Reime.pdf?sequence=3&isAllowed=y

Robinson, M. (2014). Why do players leave your game? Top 5 reasons revealed. *Gamasutra*.

Robinson, M. (2017). Using personalization to improve engagement and monetization in F2P games. Retrieved from http://www.gamasutra.com/blogs/MarkRobinson/20170402/294988/Using_personalization_to_improve_engagement_and_monetization_in_F2P_games.php

Robson, C. (2002). *Real World Research*. Oxford: Blackwell.

Ruggles, C., Wadley, G., & Gibbs, M. R. (2005). Online Community Building Techniques Used by Video Game Developers. *Ifip International Federation For Information Processing*, 114–125.

Russell, J., & Schoettle, A. (2017). Esports explode, *38*, 1–5.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*.

Sjöblom, M., & Hamari, J. (2017). Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Computers in Human Behavior*, *75*, 985–996. https://doi.org/10.1016/j.chb.2016.10.019

Smith, J., & Colgate, M. (2007). Customer Value Creation: A Practical Framework. *The Journal of Marketing Theory and Practice*, *15*(1), 7–23. https://doi.org/10.2753/MTP1069-6679150101

Stewart, B. (2011). Personality And Play Styles: A Unified Model. Retrieved October 19, 2018, from http://www.gamasutra.com/view/feature/6474/personality_and_play_styles_a_.php

Stratigos, A. (1999). Measuring end-user loyalty matters. *The Journal of Social Psychology*, *139*(3), 355–368. https://doi.org/10.1086/250095

SuperData. (2016). The MMO & MOBA games market.

SuperData. (2017a). 2017 Year in Review. Digital Games and Interactive Media, 24.

SuperData. (2017b). Esports Courtside: Playmakers of 2017, (December). Retrieved from https://dotesports.com/business/news/study-esports-industry-revenue-2017-superdata-predictions-19399

Trail, G., Anderson, D. F., & Fink, J. S. (2000). A theoretical model of sport spectator consumption behavior. *International Journal of Sport Management*, *1*, 154–180.

Trail, G. T., & James, J. D. (2001). The Motivation Scale for Sport Consumption: Assessment of the Scale's Psychometric Properties. *Journal of Sport Behavior*, *24*(1), 108–127.

Voigt, S., & Hinz, O. (2016). Making Digital Freemium Business Models a Success: Predicting Customers' Lifetime Value via Initial Purchase Information. *Business and Information Systems Engineering*, *58*(2), 107–118. https://doi.org/10.1007/s12599-015-0395-z

Wang, H., Chin, A., & Wang, H. (2011). Social influence on being a pay user in freemium-based social networks. *Proceedings - International Conference on Advanced Information Networking and Applications, AINA*, 526–533. https://doi.org/10.1109/AINA.2011.35

Wann, D. L., Schrader, M. P., & Wilson, A. M. (1999). Sport fan motivation: Questionnaire validation, comparisons by sport, and relationship to athletic motivation. *Journal of Sport Behavior*, *22*(1), 114–139. https://doi.org/Article

Wann, D. L., & Wilson, A. M. (1999). Relationship between Aesthetic Motivation and Preferences for Aggressive and Nonaggressive Sports. *Perceptual and Motor Skills*, *89*(3), 931–934. https://doi.org/10.2466/pms.1999.89.3.931

Weinstein, A. (2002). Customer retention: A usage segmentation and customer value approach. *Journal of Targeting, Measurement and Analysis for Marketing*, *10*(3), 259–268. https://doi.org/10.1057/palgrave.jt.5740051

Weiss, T., & Schiele, S. (2013). Virtual worlds in competitive contexts: Analyzing eSports consumer needs. In *Electronic Markets* (Vol. 23, pp. 307–316). https://doi.org/10.1007/s12525-013-0127-5

Wenner, L. A., & Gantz, W. (1998). *Watching sports on television: Audience experience, gender, fanship, and marriage*. MediaSport.

Wilson, S. (n.d.). The business of games Directed reading.

Wu, C. C., Chen, Y. J., & Cho, Y. J. (2013). Nested network effects in online free games with accessory selling. *Journal of Interactive Marketing*, *27*(3), 158–171. https://doi.org/10.1016/j.intmar.2013.04.001

Yee, N. (2006). Motivations for Play in Online Games. *CyberPsychology & Behavior*, *9*(6), 772–775. https://doi.org/10.1089/cpb.2006.9.772

Yee, N., Ducheneaut, N., & Nelson, L. (2012). *Online Gaming Motivations Scale: Development and Validation*. Retrieved from http://delivery.acm.org/10.1145/2210000/2208681/p2803-yee.pdf?ip=130.230.31.178&id=2208681&acc=ACTIVE SERVICE&key=74A0E95D84AAE420.8CAACA10A81E6DB1.4D4702B0C3E38B35.4D4702B0C3E38B35&__acm__=1537377052_39a564e5dcb563f092e81262b2d0e3a5

APPENDIX 1:

Table 7. *Items, standardized CFA loadings, means and standard deviations*

Item wording	Loading	Mean	SD
Achievement (ACH)			
ACH1. I feel like I have won, when the team wins	0,848***	5,17	1,500
ACH2. I feel personal sense of achievement when the team does well	0,907***	4,70	1,713
ACH3. I feel proud when the team plays well	0,827***	5,46	1,418
Knowledge (KNO)			
KNO1. I regularly check the statistics of specific players or teams	0,847***	4,12	2,005
KNO2. I usually know the team's match history	0,852***	3,82	1,821
KNO3. I read the scores and team statistics regularly	0,953***	3,69	1,980
Aesthetics (AES)			
AES1. I appreciate the beauty inherent in the game	0,815***	5,37	1,340
AES2. There is certain natural beauty to the game	0,887***	5,36	1,222
AES3. I enjoy the gracefulness associated with the game	0,827***	5,09	1,333
Drama (DRA)			
DRA1. I prefer a "close" game rather than a "one-sided" game	0,686***	6,37	1,068
DRA2. A game is more enjoyable to me when the outcome is not decided until the very end	0,783***	6,17	1,033
Escape (ESC)			
ESC1. Video games represent an escape for me from my day-to-day activities	1,040***	5,56	1,443
ESC2. Video games are a great change of pace from what I regularly do	0,511***	5,43	1,467
Family and Friends (FaF)			
FAF1. I like watching games with my friends	0,705***	5,46	1,460
FAF2. I like watching games with others interested in eSports	0,843***	5,27	1,507
Physical attraction (PHY)			
PHY1. I enjoy watching players who are physically attractive	0,446***	3,82	1,601
PHY2. The main reason I watch is that the players are attractive	0,965***	1,69	1,103
PHY3. Individual player's "sex appeal" is a big reason I watch	0,823***	1,60	1,120
Player skills (PS)			

PS1. The personal skills of the players are something I appreciate	0,616***	6,37	0,878
PS2. Watching a well-executed play performance is something I enjoy	0,864***	6,65	0,569
PS3. I enjoy a skillful performance by the team	0,715***	6,65	0,579
Social interaction (SOC)			
SOC1. Interacting with other fans is an important part of watching eSports	0,591***	3,98	1,730
SOC2. I like to talk to other people when watching the games	0,809***	4,70	1,748
SOC3. eSports broadcasts are great way to socialize with other people	0,795***	4,24	1,751
Watching intention (WI)			
WI1. I predict that I will keep watching esports streams in the future at least as much as I have watched lately	0,756***	5,50	1,323
WI2. I intend to watch esports streams at least as often within the next month as I have previously watched	0,849***	5,42	1,383
WI3. I plan to watch esports streams during the next month	0,745***	5,57	1,503
Gaming intention (GI)			
GI1. I predict that I will keep playing video game(s) in the future at least as much as I have played lately	0,810***	5,62	1,459
GI2. I intend to play video game(s) at least as often within the next month as I have previously played	0,911***	5,70	1,467
Purchase intention (PI)			
PI1. I predict that I will use money on video game(s) in the future at least as much as I have used lately	0,838***	5,05	1,658
PI2. I intend to use money on video game(s) at least as much within the next month as I have previously used	0,860***	4,73	1,769
PI3. I plan to use money on video game(s) during the next month	0,559***	4,21	1,955

***$p < 0.001$

APPENDIX 2:

Table 8. *Validity and reliability*

	CR	AVE	SA	FAF	WI	GI	KNO	PS	AES	DRA	ESC	PA	ACH
SocialActivities (SA)	0,782	0,548	**0,740**										
FamilyAndFriends (FAF)	0,764	0,619	0,713	**0,786**									
WatchingIntention (WI)	0,852	0,659	0,512	0,528	**0,812**								
GamingIntention (GI)	0,827	0,622	0,201	0,244	0,465	**0,789**							
Knowledge (KNO)	0,913	0,777	0,482	0,391	0,567	0,056	**0,882**						
PlayerSkills (PS)	0,849	0,656	0,346	0,422	0,381	0,370	0,252	**0,810**					
Aesthetics (AES)	0,886	0,722	0,369	0,348	0,341	0,227	0,310	0,385	**0,849**				
Drama (DRA)	0,752	0,508	0,182	0,368	0,360	0,200	0,243	0,514	0,315	**0,713**			
Escape (ESC)	0,701	0,498	0,474	0,515	0,630	0,360	0,619	0,443	0,408	0,425	**0,648**		
PhysicalAttraction (PA)	0,811	0,609	0,196	0,012	0,093	-0,041	0,152	0,011	0,136	0,007	0,061	**0,780**	
Achievement (ACH)	0,901	0,752	0,369	0,340	0,236	0,043	0,340	0,287	0,227	0,138	0,375	0,232	**0,867**

APPENDIX 3:

Table 9. *Survey questions*

Segment:	Question:
Qualification questions (Multiple-choice)	Do you play freemium video games? Do you watch esports streams or videos?
General information: (Multiple-choice)	Gender: Age: Employment: Education: Household income (annual):
Gaming information: (Multiple-choice)	Do you watch and play the same video game(s)? How many hours you play per week on average? How many hours you watch esports per week on average? How much money do you spend on in-game content in freemium video games per month on average?
Video game playing motivation: (7-point Likert scale)	The following component is important to me as a player: Chatting with other players Being part of a guild or a clan Grouping with other players Keeping in touch with your friends Learning about stories and the lore of the world Feeling immersed in the world Exploring the world just for the sake of exploring it Creating a background story and history for your character Becoming powerful Acquiring rare items Optimizing your character as much as possible Competing with other players
Esports viewing (7-point Likert scale)	I agree / disagree with the following component: I feel like I have won, when the team wins I feel personal sense of achievement when the team does well I feel proud when the team plays well I regularly check the statistics of specific players or teams I usually know the team's match history I read the scores and team statistics regularly I appreciate the beauty inherent in the game There is certain natural beauty to the game I enjoy the gracefulness associated with the game

	I enjoy the drama of the final round or team fight in the game
	I prefer a “close” game rather than a “one-sided” game
	A game is more enjoyable to me when the outcome is not decided until the very end
	Video games represent an escape for me from my day-to-day activities
	Video games are a great change of pace from what I regularly do
	I look forward to upcoming leagues and tournaments because they are something different to do
	I like watching games with my family
	I like watching games with my friends
	I like watching games with others interested in eSports
	I enjoy watching players who are physically attractive
	The main reason I watch is that the players are attractive
	Individual player’s “sex appeal” is a big reason I watch
	The personal skills of the players are something I appreciate
	Watching a well-executed play performance is something I enjoy
	I enjoy a skillful performance by the team
	Interacting with other fans is an important part of watching eSports
	I like to talk to other people when watching the games
	Esports broadcasts are great way to socialize with other people
Gaming habits in the future (7-point Likert scale)	I agree / disagree with the following component:
	I predict that I will keep watching esports streams in the future at least as much as I have watched lately
	I intend to watch esports streams at least as often within the next month as I have previously watched
	I plan to watch esports streams during the next month
	I predict that I will keep playing video game(s) in the future at least as much as I have played lately
	I intend to play video game(s) at least as often within the next month as I have previously played
	I plan to play video game(s) during the next month
	I predict that I will use money on video game(s) in the future at least as much as I have used lately
	I intend to use money on video game(s) at least as much within the next month as I have previously used
	I plan to use money on video game(s) during the next month